

2013

What Motivates U.S. High School Students to Choose to Learn Chinese?

Suihua Zhao
Lehigh University

Follow this and additional works at: <http://preserve.lehigh.edu/etd>



Part of the [Educational Leadership Commons](#)

Recommended Citation

Zhao, Suihua, "What Motivates U.S. High School Students to Choose to Learn Chinese?" (2013). *Theses and Dissertations*. Paper 1695.

This Dissertation is brought to you for free and open access by Lehigh Preserve. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Lehigh Preserve. For more information, please contact preserve@lehigh.edu.

What Motivates U.S. High School Students to Choose to Learn Chinese?

by

Suihua Zhao

A Dissertation

Presented to the Graduate and Research Committee

of Lehigh University

in Candidacy for the Degree of

Doctor of Education

in

Educational Leadership

Advisor: Dr. Jill Sperandio

Lehigh University

February, 2013

Copyright Statement

Copyright by Suihua Zhao

February, 2013

Certificate of Approval: Doctor of Education Program of Study

| | |
|------------------------------|---|
| <u>Candidate</u> | Suihua Zhao |
| <u>Program Concentration</u> | Educational Leadership |
| <u>Major Advisor</u> | Jill Sperandio |
| <u>Residency</u> | Summer, 2005 – Summer, 2006 |
| <u>Dissertation Title</u> | What Motivates U.S. High School Students to Choose to Learn Chinese? |

Approved and recommended for acceptance as a dissertation in partial fulfillment of the requirements for the degree of Doctor of Education.

Date

Accepted Date

Special Committee

Dr. Jill Sperandio, Chair

Associate Professor of Education

Dissertation Director

Committee Members:

Dr. Scott Garrigan

Professor of Practice of Teaching, Learning & Technology

Dr. Gisela Gisolo

Director, International and Off-Campus Education

Lafayette College

Dr. Yiqiang Wu

Associate Professor of Special Education, Language & Literacy

The College of New Jersey

Language Requirement

Not Applicable

Qualifying Exam

July, 2006

General Exam

Summer, 2007 & Spring, 2008

Previous Degrees

BA, Zhongshan University, 1982

MA, the College of New Jersey, 1993

M. Ed, the College of New Jersey, 1995

Acknowledgements

This study took seven years while I was a full-time ESL and bilingual Chinese teacher at a New Jersey public school. Many people have contributed to the success of this research. Without their guidance and support, I would never have been able to complete it. I am profoundly grateful to Dr. Jill Sperandio, my dissertation committee chairperson, for her valuable guidance, support, and understanding. I will forever remember Dr. Daphne Hobson, who inspired me beyond words and started me on the journey to realizing my dream. I am deeply indebted to Dr. Virginia Rojas for giving me the inspiration for the topic for this study. I would like to thank Dr. Xiaohong Wen for her kindness in allowing me to use her survey instrument and inviting me to present my study at the 2012 Annual Convention of the Chinese Language Teachers Association (CLTA) and American Council on the Teaching of Foreign languages (ACTFL).

My gratitude also goes to Dr. Yiqing Wu at the College of New Jersey and to Dr. Scott Garrigan, who helped me revise my dissertation and offered me valuable advice on my research methodology and writing; to Dr. Gisella Gisolo for her insight and encouragement; to Dr. Qiong Fu, who taught me how to conduct statistical analysis and helped me pass the demanding evaluation of the Institutional Review Board; and to Dr. Roger Douglas for helping me secure summer campus housing to complete the dissertation proposal writing. I would also like to express my gratitude to Dr. Weiling Wu, who not only checked my qualitative data collection and analysis, but also offered me valuable advice on dissertation

writing and presentation; to Mrs. Donna Gil for revising my dissertation proposal and offering me tremendous encouragement; and to Dr. Vivian Yu who also checked my qualitative data collection and analysis.

In addition, I am deeply indebted to my dear colleagues Dr. Weiling Wu, Dr. Vivian Yu, and Ms. Yvonne Chu for their support in helping me conduct the student survey and focus group interviews; and for their participation in individual teacher interviews. Their valuable support contributed to the success of timely data collection. I will forever remember their professionalism and kindness. My gratitude also goes to Dr. James P. Liu for coaching me in studying statistics, to Mr. James Pilton for revising my dissertation draft, and to Mr. Bohua Zhan and Dr. Wenlong Weng for coaching me in conducting the statistical analysis.

West Windsor-Plainsboro Regional School District has provided me with tremendous support for this research. My gratitude goes to Dr. Victoria Kniewel, superintendent of West Windsor-Plainsboro Regional School District, who granted the official approval to start the research; to Ms. Carol Meulener, the district's World Language Department Supervisor, who approved my request to conduct the survey and answered all of my questions; to Ms. Deirdre Bova, my former supervisor, for granting me valuable resources and support in conducting the survey; and to Ms. Alicia Boyko, the school district's director of human resources, who approved my request to complete this doctoral degree program and also offered me valuable encouragement.

Last, I would like to thank my husband Luhuai Liu for his full-time support of my

research. I would also like to thank my son, Yuxiang Liu, a Carnegie Mellon-trained computer expert, for teaching me many technical tips to edit and format my dissertation. My gratitude also goes to Dr. Robert C. Smith, who encouraged me to pursue my dream, and to all of the people who helped me directly or indirectly in my life. Without their support and help, I could not have completed this study.

I hope this study will provide insights into world language education and especially Chinese language education in the United States.

Dedication

I dedicate this study to my parents Mingyang Zhao and Chiduan Yang, who have given me the love and courage to face the challenge of life; and to my husband Luhuai Liu and my son Yuxiang Liu for their profound kindness, love and support.

This dissertation is also dedicated to my late professor Dr. Kenneth E. Everard and my late friend Mr. Harold Joseph Murphy, who offered me the opportunity to further my education in the United States.

Table of Contents

| | |
|---|-----|
| Title Page..... | i |
| Copyright Statement | ii |
| Certificate of Approval: Doctor of Education Program of Study..... | iii |
| Acknowledgements..... | vi |
| Dedication..... | ix |
| Table of Contents..... | x |
| List of Tables | xiv |
| List of Figures..... | xvi |
| Abstract | 1 |
| Chapter 1 Introduction | 3 |
| My Choice of Research Area | 3 |
| History and Reasons for Promoting Language Education in U.S. Schools..... | 4 |
| Chinese Programs in the United States..... | 5 |
| Theoretical Framework..... | 5 |
| Chinese Language Programs in U.S. Public Schools | 7 |
| Research Questions..... | 8 |
| Research Sites..... | 9 |
| Research Design | 11 |
| Significance of the Study | 12 |
| Definition of Terms..... | 13 |

| | |
|---|----|
| Chapter 2 Review of Relevant Literature..... | 17 |
| Introduction..... | 17 |
| Organization of the Literature Review..... | 17 |
| Pioneers of L2 Motivation Research: Gardner and Lambert..... | 18 |
| <i>Integrative motivation associated with higher L2 achievement.</i> | 19 |
| <i>Gardner’s definition of L2 motivation.</i> | 20 |
| <i>Key components of socio-educational model.</i> | 21 |
| Development of L2 Motivation Research..... | 24 |
| <i>Neurobiological approach in exploring L2 motivation.</i> | 25 |
| <i>Dörnyei’s contributions to L2 motivation research.</i> | 25 |
| Two Trends in Broadening L2 Motivation Study..... | 26 |
| Research on Sustaining L2 Learning Motivation..... | 28 |
| Impact of Language Globalization Process on L2 Motivations..... | 29 |
| Motivation Research on Learning Less Commonly Taught Languages..... | 31 |
| <i>Husseinali’s study: motivation for learning Arabic.</i> | 31 |
| <i>Cai’s study: college students’ motivation for learning Chinese.</i> | 32 |
| Expectancy-Value Theories..... | 32 |
| <i>Applying expectancy-value theories in L2 motivation study: Wen’s study</i> | 33 |
| <i>Possible flaws in Wen’s instrument.</i> | 36 |
| Self-Determination Theory..... | 37 |
| <i>Intrinsic and extrinsic motivations</i> | 40 |

| | |
|--|----|
| <i>Self-determination theory and the motivation for learning Chinese</i> | 41 |
| Goal Theories | 44 |
| Chapter Summary | 44 |
| Chapter 3 Methods..... | 46 |
| Purpose of the Study..... | 46 |
| Research Design..... | 47 |
| Instruments..... | 49 |
| Participants..... | 52 |
| Data Collection..... | 53 |
| Data Analysis..... | 55 |
| Chapter Summary | 60 |
| Chapter 4 Results | 61 |
| Organization of the Research Results Presentation..... | 61 |
| Quantitative Findings from the Survey Results | 61 |
| <i>Results of the response frequency analysis</i> | 63 |
| <i>Results of the independent t tests</i> | 70 |
| <i>Correlations between expectancy and motivational factors</i> | 71 |
| <i>Motivation to persist in learning Chinese</i> | 73 |
| Summary of Quantitative Investigation Findings | 76 |
| Qualitative Investigation Results..... | 78 |
| <i>Results of open-ended questions</i> | 78 |

| | |
|---|-----|
| <i>Results of student focus group interviews</i> | 90 |
| <i>Results of teacher interviews</i> | 104 |
| Summary of Qualitative Investigation Findings | 122 |
| Chapter Summary | 123 |
| Chapter 5 Discussion..... | 127 |
| What Motivate Students to Learn Chinese and Sustain Their Learning? | 127 |
| Similarities between the Present Study and Research Using the Same Instrument | 133 |
| Recommendations and Future Research..... | 134 |
| Conclusion..... | 137 |
| References | 140 |
| Appendixes | 152 |
| Appendix A: Student Questionnaire | 152 |
| Appendix B: Open-Ended Interview Guide for Focus Group Interviews | 160 |
| Appendix C: Open-Ended Interview Guide for Individual Teacher Interviews | 161 |
| Appendix D: Consent Form | 162 |
| Appendix E: Consent Form..... | 165 |
| Vita..... | 168 |

List of Tables

| | |
|---|----|
| Table 1. Characteristics of the Motivated Individual (Gardner, 2006) | 21 |
| Table 2. Constructs and Scales of the AMTB (Gardner, 2006) | 23 |
| Table 3. Wen's Survey Instrument Overview | 35 |
| Table 4. Student Questionnaire Survey Instrument Overview | 50 |
| Table 5. Survey Participants' Background Information | 62 |
| Table 6. Participants' Years of Studying Chinese..... | 63 |
| Table 7. Overall Response Frequencies to Items 1-12 (All Participants) | 65 |
| Table 8. Positive Response Percentage (EC vs. NC Participants)..... | 67 |
| Table 9. Positive Response Percentage by Chinese Levels..... | 69 |
| Table 10. M and SD of the Motivational Factors: EC vs. NC Groups..... | 71 |
| Table 11. T Test Results: EC vs. NC Groups..... | 71 |
| Table 12. Correlations between Motivational Factors and Expectancy: EC vs. NC Groups.. | 73 |
| Table 13. Regression: Factors Impacting the Sustainability of Motivations..... | 76 |
| Table 14. Reasons to Study Chinese Again (Overall)..... | 80 |
| Table 15. Reasons not to Study Chinese Again | 81 |
| Table 16. EC vs. NC Groups: Reasons to Study Chinese Again | 82 |
| Table 17. Intermediate vs. Advanced Levels: Reasons to Study Chinese Again..... | 83 |
| Table 18. Factors Sustaining Interest in Learning Chinese (Overall Responses)..... | 85 |
| Table 19. Factors Sustaining Interest in Learning Chinese: EC vs. NC Students | 87 |
| Table 20. Factors Sustaining Interest in Learning Chinese: Intermediate vs. Advanced Levels | |

..... 88

Table 21. Focus Group Participants' Information..... 91

List of Figures

| | |
|--|----|
| Figure 1. The Socio-Educational Model (Gardner, 2006)..... | 22 |
| Figure 2. The Model with the Indicators (Gardener, 2006)..... | 24 |
| Figure 3. Tremblay and Gardner’s (1995) Model of L2 Motivation | 28 |
| Figure 4. Key Points of Self-Determination Theory (SDT) | 39 |

Abstract

This study surveyed 217 high school students' motivational factors in learning Chinese and the factors that sustain their learning of this language. In addition, the perceptions of Chinese teachers and student focus groups were used to verify, explain and expand the survey findings.

The findings suggested that the future career prospect connected to China's economy was one of the most important factors that motivated students to learn Chinese and sustained their motivation. This finding supports the language globalization hypothesis proposed by Dörnyei and Csizer (2002) as such that Chinese is in the process of being changed into a world language due to the growth of China's economy. In addition, the unique aspect of Chinese language and culture contributes to the challenge of learning Chinese and serves as another important factor to motivate students and sustain their learning. This finding supports self-determination theory (SDT) as learning a challenging subject satisfies learners' needs for competence. It was found non-Chinese students continued significantly longer in Chinese programs. Heritage is ethnic Chinese students' most important motivator to learn Chinese and one of the important factors to sustain their learning. The desire to maintain one's heritage through learning a second language (L2) reflects heritage learners' need for relatedness to their culture, which is one of human beings' innate psychological needs according to SDT. In addition, similarities were found between the present study and a study conducted by Husseinali (2006) using a similar instrument.

It is recommended that future studies include student dropout groups in L2 motivation

research to examine factors that sustain L2 learning. Future studies also need to examine effective ways to help students feel successful in L2 learning. More studies on high school students' motivation for learning Chinese and other less commonly taught languages are needed. School leaders need to be sensitive to learners' language status perception and consider adding Asian languages to develop a diverse world language program. This will satisfy students' needs for competence.

This research is intended to provide data for schools in the United States and overseas that are contemplating implementation of a Chinese language program.

Chapter 1 Introduction

More than two decades ago, a young woman in China was assigned to teach English at a rural high school. Most of the students were from needy farmers' families. Learning English seemed to be unimportant to these farmers' children, who had no desire or means to go to college. However, quite a few of them became top students in learning English despite the fact that the subject was extremely challenging and did not seem to have any practical value to them. As their teacher, the young woman asked herself what motivated these students to pursue such a difficult foreign language. Many years on, she still thinks about this question. I was their teacher, and this dissertation is my attempt to answer the question from the other side of the globe.

My Choice of Research Area

At present, an increasing number of students in the United States are choosing to learn Chinese as their world language despite its challenging aspect (Pufahl & Rhodes, 2011). According to data from the U.S. Foreign Service Institute, it takes English-speaking American students at least three times longer to learn Chinese than to learn a European language (Wen, 1997; Language difficulty ranking, 2011).

What motivates American young people, especially high school students, who are often rebellious and may have a tendency to do the least school work possible, to pursue a challenging language like Chinese for their high school graduation requirement in world

language? According to New Jersey State Department of Education (2010), a student needs to complete at least five credits of a world language course in order to graduate from high school. Do students of Chinese heritage and non-Chinese heritage possess different motivations for learning Chinese? These questions have intrigued me for a long time. My dissertation research has provided me with an opportunity to seek answers and to explore U.S. high school students' motivation to challenge themselves by choosing to learn Chinese.

History and Reasons for Promoting Language Education in U.S. Schools

The heavy involvement of the United States in a global economy and international politics suggests the need for providing a first-class language education to all students. Such first-class foreign language education contributes greatly to this nation's capacity to maintain national security, promote international cooperation, compete effectively in a global economy, and enhance the nation's domestic well-being (Pufahl & Rhodes, 2011).

Prior to the 1980s, most American high schools did not require foreign language as a graduation requirement (Ramage, 1986). Today, most U.S. high schools require students to learn a second language. According to New Jersey State Department of Education (2010), high school students at every school district in New Jersey, for example, need to complete at least five credits of a world language course to graduate.

Moreover, the term "world language" has replaced "foreign language" in the public school curriculum in New Jersey. The change in the title has a far-reaching significance.

World language implies a much broader spectrum of study than does foreign language. A world language course not only increases students' linguistic knowledge but also their cultural awareness of their local and world community (New Jersey core curriculum content standards for world languages, 2009). And preparing our students to think globally begins far earlier than the college level.

Chinese Programs in the United States

In recent years, a growing number of institutions of higher education and even public school districts in the United States have added Chinese in their world language programs to meet the increasing demands from students (Welles, 2004; Wen, 1997; Xing, 2006). The percentage of middle and high schools offering Chinese has quadrupled from 1% in 1997 to 4% in 2008 (Rhodes & Pufahl, 2010). This trend seems to be propelled by China's impressive growth in its economy and global influence. In 2010, China surpassed Japan to become the world's second-largest economy after the United States (Dawson & Dean, 2011).

Theoretical Framework

An examination of the factors motivating students to study a second language (known as L2) draws on a number of theoretical perspectives. The motivation of high schools students needing language study to graduate is clearly linked to the expectancy-value theories proposed by Vroom (1964) and Mitchell (1974). Beyond this, theorists in the field of second-language learning have built on the motivation studies of Gardner and Lambert (1959), who

proposed a social-psychological approach of L2 acquisition.

Gardner and Lambert are the most influential pioneers in the study of motivational theory in L2 acquisition. They developed a comprehensive theory of L2 motivation (Gardner, 1968a; Gardner, Glikman, & Smythe, 1978; Gardner & Lambert, 1959a; Gardner & Lambert, 1965a; Gardner & Lambert, 1965b; Gardner & Masgoret, 1999; Gardner, Masgoret, Tennant, & Mihic, 2004a). Their social-psychological approach focused on factor analysis of L2 motivations to determine which factors significantly contribute to L2 achievement (Gardner, 1978). This approach categorized learners' orientations into attitudes, motivation, and language aptitudes.

The socio-educational model of L2 acquisition developed by Gardner and MacIntyre (1993) and expanded in 1994 (Gardner & Tremblay, 1994 b) was based on the earlier social-psychological approach (Gardner & MacIntyre, 1993). The survey instrument used in the present study is based on the socio-educational model.

Noels (1996) proposed to integrate self-determination theory (SDT) into an L2 motivation study as a means to broaden and advance L2 motivation research. Noels (2003) examined the link between SDT and L2 motivation in an empirical study. Her project was the first examination of SDT in L2 learning context, and one of the very few empirical investigations of intrinsic and extrinsic motivation in the area. It involved the development of an instrument to assess the different subtypes of intrinsic and extrinsic motivation. It also explored the link between these motivational subtypes and various orientations to L2 learning

(Noels et al., 2001; Noels, 2003; Noels, Pelletier, Clément, & Vallerand, 2003). Noels's insights informed the analysis and interpretation of the research findings of this study.

The present study is also informed by the components of Dörnyei's L2 learning motivation model (Dörnyei, 2000; Dörnyei, 1994) and the language globalization process hypothesis proposed by Dörnyei and Csizer (2002).

Empirical research. While theories to explain the motivation to learn a second language abound, few empirical studies that examine the specific motivation to learn Chinese have been undertaken to date. The majority of those that examine Chinese language acquisition (Cai, 2011; Chen, 1995; Wen, 1997; Xing, 2006; Yang, 2011) have been conducted at the U.S. college level. The researcher found only one study of Chinese language education at the U.S. high school level undertaken by Wu (2005). What motivates U.S. high school students to choose to learn Chinese and whether the motivating factors differ by student ethnicity remain largely undetermined.

Chinese Language Programs in U.S. Public Schools

According to a national survey of foreign language instruction in U.S. schools conducted by the Center for Applied Linguistics (Pufahl & Rhodes, 2011), among schools with foreign language programs in the United States, the percentage of public schools offering Spanish, French, and German nationwide decreased from 1997 to 2008. At the same time, the percentage of middle and high schools offering Chinese and Arabic has increased

significantly. Chinese programs have increased from 1% in 1997 to 4% in 2008 (Pufahl & Rhodes, 2011). While this trend may be attributed in part to a supply of Chinese teachers by the Chinese government (Zhao & Huang, 2010), Chinese is now offered in schools throughout the United States with rapidly increasing student enrollment (Rhodes & Pufahl, 2010; Welles, 2004).

While the decision to offer Chinese in schools may be driven by outside influences such as interest of Chinese immigrant communities in providing their children with links to their ethnic backgrounds, or Chinese teachers offered and financed by the Chinese government, students still have a choice in language selection. Students currently learning Chinese in U.S. high schools include both those from an ethnic background linked to Chinese language and culture, and those with no ethnic Chinese background. However, few studies to date have explored whether the motivations of non-Chinese (NC) background and ethnic Chinese (EC) background high school students are the same or different in choosing to learn Chinese, or whether their perceptions regarding the challenges in maintaining their interest in studying Chinese are the same or different. As Chinese programs have quadrupled in the U. S. secondary schools in recent years (Pufahl & Rhodes, 2011), there is a need to examine high school students' motivations for learning Chinese.

Research Questions

This research study examines the factors that affected U.S. high school students' motivations for learning the Chinese language in the context of two New Jersey high schools and whether these

factors differed by student ethnicity. The research questions are:

1. Which motivational factors influence New Jersey high school students to choose to learn Chinese to meet the high school graduation requirements?
 - (a) Does the ethnic background of the students influence second language choice?
 - (b) Is there a difference in the motivational factors by Chinese class levels?
2. Which factors sustain students' learning interest and help them persist in learning Chinese beyond meeting the high school graduation requirements?
 - (a) Do the factors that sustain students' learning interest differ by ethnic backgrounds?

Research Sites

The two high schools in West Windsor-Plainsboro (WW-P) Regional School District in New Jersey were chosen as the research sites. Located midway between the metropolitan areas of New York and Philadelphia, WW-P Regional School District serves two diverse suburban townships of approximately 42,000 residents. Because of the influence of the high number of well-educated professionals residing in the area, WW-P School District reflects the tradition of a community that takes pride in academic achievement and cultural diversity (West Windsor-Plainsboro Board of Education, 2010). At the time the current study was conducted, there were 850 faculty and staff serving 9,500 students in the school district's 10 schools. The school district had two high schools, two middle schools, and six elementary schools (West Windsor-Plainsboro Board of Education, 2010).

According to a school report card issued by New Jersey Department of Education (2011), WW-P Regional School District maintains almost 100 percent graduation rate and surpasses state and national counterparts on standardized tests. The district's SAT scores (594/632/600 for Critical Reading/Math/Writing) are well above state (496/513/496) and national (501/515/493) averages. Moreover, the population of the school community reflects the growing trend toward pluralism in American society. Students represent all major racial and ethnic groups: 51 percent Asian, 38 percent White, 6 percent African American, and 5 percent Hispanic (New Jersey Department of Education, 2011a; New Jersey Department of Education, 2011b). The diversity of the student population makes the district's two high schools ideal sites for education research.

Since 1987, WW-P Regional School District has established, pioneered, and developed the program of teaching Chinese as a world language (Wu, 2011). The program was initiated by the local Chinese residents, who signed a petition requesting that Chinese be taught in the high schools. At that time, the Geraldine R. Dodge Foundation offered seed funding for 60 high schools around the country to start Chinese programs. One of WW-P Regional School District's high schools was funded by the Dodge Foundation with \$ 20,000 for each of the first two years. In the third year the school district assumed the financial responsibility of the Chinese program (Wu, 2011).

At the time this research study was undertaken (2012), the Chinese language program at WW-P Regional School District was available to students from grades 4 through 12. At the high school level, the school district offers Chinese programs in five levels from Chinese II to AP Chinese. Beginner level Chinese classes are only available at the middle school and elementary

school levels. At WW-P Regional School District, seven Chinese language teachers teach more than 600 students who have selected Chinese as a world language from grades 4 to 12. The program has expanded approximately 12-fold in two decades (Wu, 2011).

At the high school level, three Chinese language teachers teach a total of more than three hundred students. Students are from various ethnic backgrounds with various language learning experiences. In addition, Chinese language teachers at the high school level are from ethnic Chinese backgrounds with various teaching experience. Two teachers are native Chinese speakers from mainland China or Taiwan and the third was born and educated in the United States, whose first language may not be Chinese. The diverse backgrounds of the teachers also contributed to the value of selecting the two high schools of WW-P School District as a site for the study.

Research Design

The study adopted an explanatory mixed-method design to seek answers to the research questions.

Step 1. The researcher administered a modified version of a survey based on an instrument developed by Wen (1997) to 217 high school students to collect quantitative information on students' ethnicity, motivations, and expected outcomes from opting to learn Chinese and qualitative information from responses to two open-ended questions in the survey.

The data analysis procedure developed by Husseinali (2006) was replicated with

modifications to analyze data for any statistical differences in motivational factors between ethnic-Chinese and non-Chinese students using frequency analysis and independent *t* tests. In addition, regression analysis was used to determine which variables significantly impacted students' interest in continuing to learn Chinese.

Step 2. One focus group interview was held in each of the high schools. Each group consisted of 14 to 15 students from both ethnic Chinese and non-Chinese backgrounds. The researcher used qualitative data analysis techniques to code the interview data for themes related to the research questions and explanations of the patterns emerging from the survey.

Step 3. The researcher interviewed three Chinese language teachers for their perceptions about the motivations of their high school students who choose to learn Chinese and factors that sustained students' learning interest.

Significance of the Study

School administrators, in their capacity as instructional leaders, must make decisions regarding the courses they will offer students. Decisions about second language electives are frequently driven by national perceptions of language acquisition needs, by the demands of the school's parent community, and by administrative perceptions of student interest. This study provides empirical evidence to help school leaders understand the motivation leading different groups of students to select and persevere with a second language. It also provides insights into those specific aspects of Chinese language learning that students find attractive,

which in turn may help enhance teaching in this area.

The study also contributes to the wider academic debate around second language learning. Its focus on high school students and on Chinese language acquisition extends current second language studies. The inclusion of student and teacher voices in the study will further inform educators of student perceptions and understandings related to their motivation for learning Chinese.

Definition of Terms

The following definitions serve to clarify the terminology in the context of this study:

Advanced level Chinese classes – Chinese levels 4, 5, and AP at the high school level.

AMTB – This refers to the Attitude/Motivation Test Battery based on Gardner’s social psychological theory. It is a self-reported questionnaire measuring five attributes associated with L2 learning. The five attributes include: (1) integration, (2) attitudes toward the learning situation, (3) motivation, (4) learning anxiety, and (5) instrumentality (Gardner, 2006).

An explanatory mixed method design or a two-phase model – This involves collecting quantitative data and then collecting qualitative data to help explain the quantitative results. The quantitative results provide a general address or an answer to the research question while the qualitative data provides further analysis to extend or explain the general address (Creswell, 1994).

Ethnic-Chinese-background students – This refers to students who have been raised in

families with connections to Chinese language or culture.

Expectancy – perception of the probability of attaining the goals (Shaaban & Ghaith, 2000).

Expectancy-value theories – proposed by Vroom (1964) and Mitchell (1974) who argue that motivation is a function of valence and expected outcome.

Expectancy-value theories in L2 learning setting – Learners' motivation is the product of attractiveness of learning outcomes, expectancies of learning ability, and probability of obtaining the desired learning outcomes (Wen, 1997).

Extrinsic motivation – to perform an activity in order to attain some separable outcome or benefits (Ryan & Deci, 2000, p. 71). It includes three levels or subtypes in the context of L2 learning (Noels et al., 2001).

Gardner's definition of L2 motivation – It defines L2 motivation through its major attributes, focusing on the intensity or amount of motivation (Gardner, 2006).

High school world language graduation requirement – In New Jersey, a student is required to complete at least five credits of a world language course in order to graduate from high school (State Board of Education, 2004).

Hypothesis of language globalization process – a hypothesis proposed by Dörnyei and Csizer (2002) that the trends and patterns of learners' motivations for learning L2 are connected to the status of a language. Learners' motivation for learning a foreign language is heavily impacted by a

language's world language or non-world language status. If a language is perceived to have obtained the status of world language, people will be naturally motivated to choose to learn this language, no matter how difficult it may be.

Intermediate level Chinese classes – Chinese levels 2 and 3 at the high school level.

Intrinsic motivation – the “inherent tendency to seek out novelty and challenges, to extend and exercise one's capacity, to explore, and to learn” (Ryan & Deci, 2000, p. 70).

Learning interest – learning motivation

L2 – second language

Non-Chinese-background students – This refers to students who have been raised in families with no ethnic connections to Chinese language or culture.

Regulatory focus – a concept proposed by Higgins (1997) that forms the foundation of the hedonic principle that people are motivated to avoid pain and to seek pleasure. It emphasizes the different ways that human beings approach pleasure and avoid pain.

SDT – Self-determination theory – a theory proposed by Ryan and Deci (1980). According to SDT, all human beings possess three basic innate needs: for relatedness, competency, and autonomy. If these three needs are satisfied, it will lead to autonomous motivation and effective performance. If these three needs are not satisfied, it will lead to poor performance, social alienation, and even psychological pathology.

SLA – second language acquisition.

SPSS – statistical package for the social sciences.

Valence – perceived attractiveness of the goals (Shaaban & Ghaith, 2000), or how significant or valuable a given task perceived by the learners.

World language -- The definition of world language seems to cover a much broader spectrum than foreign language. A world language course increases not only students' linguistic knowledge but also the cultural awareness of their local and world community (State Board of Education, 2004).

Chapter 2 Review of Relevant Literature

Introduction

The purpose of this study is to explore the factors that motivate U.S. high school students to choose to learn Chinese as a graduation requirement and the factors that impact their continuing interest in learning Chinese beyond meeting the graduation requirements. This study is informed by research in the areas of L2 motivation theory. Research in the area of motivational psychology is characterized by the use of three dominant approaches: expectancy-value theories, goal theories, and self-determination theory (Dörnyei, 2000). Expectancy-value theories and self-determination theory informed the present study. As the present study is not underpinned by goal theories, the review of goal theories will be brief.

Organization of the Literature Review

The review of the research literature that underpins this study consists of the following components:

- Motivation research and theories, and their connection to decisions to learn a second language (L2). L2 motivation theories provided the background and theoretical references for conducting research on student motivations for learning foreign languages.
- Self-determination theory (SDT), and its definition of intrinsic and extrinsic motivation. SDT is a broad and profound mainstream theory in psychology, which

was applied to interpret the findings of the present study and to address the second research question.

- Expectancy-value theories. Motivation studies on less commonly taught languages guided by expectancy-value theories are especially relevant to the current study. First, expectancy-value theories offered a theoretical framework to address the second research question through identifying factors that sustained students' motivation for learning Chinese. In addition, expectancy-value theories provided a tool to investigate the differences in motivational factors. The survey instrument adopted by the current study was based on expectancy-value theories.
- Language globalization theory. The hypothesis of language globalization process provided theories to address the first research question for the present study through interpreting factors that motivated students to choose to learn Chinese.

Pioneers of L2 Motivation Research: Gardner and Lambert

Gardner and Lambert pioneered the systematic research of L2 motivation in the late 1950s and dominated the field until 1980 using a social psychological approach (R. C. Gardner & Lambert, 1959b; R. C. Gardner & Lambert, 1965a; R. C. Gardner, 1968a; R. C. Gardner, 1968b; R. C. Gardner et al., 1978; R. C. Gardner & MacIntyre, 1993; R. C. Gardner & Tremblay, 1994b; R. C. Gardner, Masgoret, Tennant, & Mihic, 2004b). This approach focused on analyzing measures of attitudes, motivation, language aptitudes, and L2 achievement (R. C. Gardner et al., 1978).

Integrative motivation associated with higher L2 achievement. The research of Gardner and Lambert follows a social psychological approach (R. C. Gardner & Lambert, 1959a; R. C. Gardner, 2006; Lambert, Gardner, Barik, & Tunstall, 1963). This approach categorizes people's motivations to learn a second language (L2) into two orientations: integrative and instrumental. Integrative motivation refers to the motivation to learn a language for the purpose of understanding the culture and integrating with the culture of the target language. Instrumental motivation defines the motivation to learn a language as for the purpose of gaining practical benefits, like a job, promotion, etc. Gardner and Lambert claimed that integrative motivation was associated with higher L2 achievement (Gardner, 1968a; Gardner, 2006; Gardner & Lambert, 1959a; Lambert et al., 1963).

In addition, Gardner (2006) considers language learning different from learning most of other school subjects because L2 learning involves the adoption of another culture, which should be recognized when considering motivation. Therefore, the social psychological approach considers that motivation involves more than just reasons for learning the language. In recent years, this approach has focused on examining the relationship among three factors: motivation, attitudes towards the learning situation, and integrativeness. It suggests that integrative motivation plays an important role in L2 acquisition (Gardner, 2006).

Gardner and Lambert are the most influential pioneers in the study of motivation theory in L2 learning (Dörnyei, 2000). A large number of their studies examined student motivations for learning French as a second language in Canada. A key finding of these studies is that L2

learning is not a socially neutral field, and thus it differs from that of the mastering of other academic subjects (Dörnyei, 2000). Because L2 learning involves the adoption of another culture, it is more than just mastering the vocabulary or grammatical structure of a language. Learners' attitudes and beliefs towards the target language play an important role in their motivation and performance.

Gardner (2006) contributed to L2 motivation research with a comprehensive three-part theory. The theory included a definition of L2 motivation and its attributes, socio-educational model, and an Attitude/Motivation Test Battery (AMTB) based on his social psychological theory (Gardner, 2006).

Gardner's definition of L2 motivation. Gardner's definition of L2 motivation contains three components: a) motivational intensity, b) the desire to learn L2, and c) attitudes towards learning L2 (Gardner, 2006).

According to Gardner (2006), motivation is an immensely complex concept, and therefore, it is only possible to define it through its major attributes.

Table 1. *Characteristics of the Motivated Individual (Gardner, 2006)*

| | |
|--|--------------------------|
| is goal directed | expends effort |
| is persistent | is attentive |
| has desires (wants) | exhibits positive affect |
| is aroused | has expectancies |
| demonstrates self-confidence (self-efficacy) | has reasons (motives) |

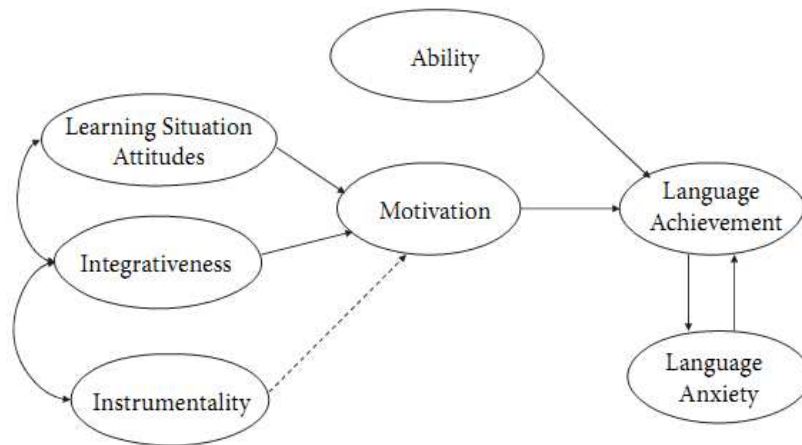
(Gardner, 2006, p. 246).

In Table 1, Gardner listed ten characteristics or attributes that defined motivation.

Although Gardner did not specify the relationships among these ten attributes, goal directed appears to occupy the most important position. Without a goal, an individual would not have desires, wants, or expectations and would have no reasons or motives to be aroused or to be persistent in expending efforts.

Key components of socio-educational model. Gardner (2006) stated that motivation is a main feature of the socio-educational model. Figure 1 illustrates the key components of Gardner's socio-educational model.

Figure 1. *The Socio-Educational Model (Gardner, 2006)*



(Gardner, 2006, p. 246).

In Gardner's socio-educational model, ability and motivation are the two key factors that contribute to students' L2 achievement. Language anxiety is the third factor that contributes to or decreases students' L2 achievement, which is an interesting two-sided factor. However, ability lies outside of motivation, and therefore, has no association with motivation. As a person's L2 learning ability is mostly innate and almost impossible to change, it makes sense to focus on the motivation, which can be developed or changed. Three mutually interacting variables contribute to the development or intensity of motivation. In a previous socio-educational model of Second Language Acquisition (SLA), motivation shows a causal relationship with language anxiety (Gardner & MacIntyre, 1993). But the current model, viewing these two factors as unrelated, has removed the causal relationship between motivation and anxiety. The separation of motivation and anxiety in SLA is an improvement on the socio-educational model.

A key finding is that Gardner’s model focuses on the intensity or the amount of the motivation. This is fundamentally different from the model of self-determination theory (SDT), which focuses on the types of motivation.

Attitude/motivation test battery. Table 2 illustrates Gardner’s AMTB. AMTB refers to the Attitude/Motivation Test Battery based on Gardner’s social psychological theory. It is a self-reported questionnaire to measure five general attributes associated with L2 learning achievement. The five attributes include: (a) integrativeness, (b) attitudes toward the learning situation, (c) motivation, (d) learning anxiety, and (e) instrumentality (Gardner, 2006).

Table 2. Constructs and Scales of the AMTB (Gardner, 2006)

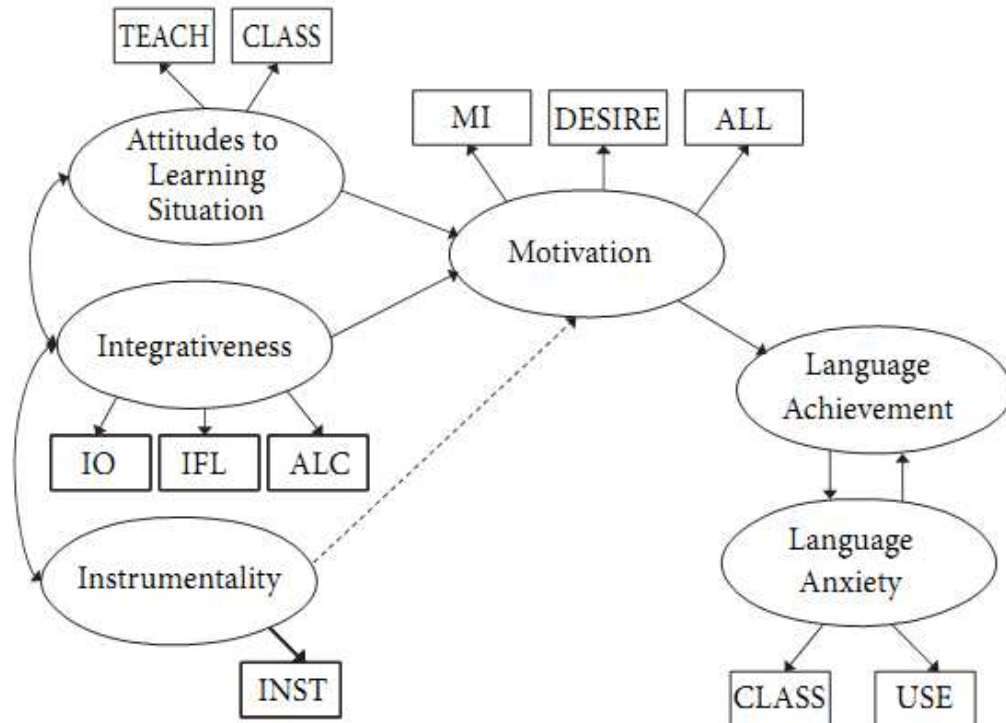
| Constructs | Scales |
|---|--|
| Integrativeness | Integrative Orientation Attitudes toward the Target Group Interest in Foreign Languages |
| Attitudes toward the Learning Situation | Teacher Evaluation Course Evaluation |
| Motivation | Motivational Intensity Desire to Learn the Language Attitudes toward Learning the Language |
| Language Anxiety | Language Class Anxiety Language Use Anxiety |
| Instrumentality | Instrumental Orientation |

(Gardner, 2006, p. 246).

Figure 2 is an expansion of the socio-educational model and illustrates AMTB. It has removed the factor of innate ability as that is not possible to change and thus is not relevant in this context. Figure 2 reveals motivation plays the most important part in predicting L2

achievement, while language anxiety enhances or decreases L2 achievement. Three subscales play the role of enhancing motivation through mutual interactions.

Figure 2. *The Model with the Indicators* (Gardener, 2006)



(Gardner, 2006, p. 246).

Development of L2 Motivation Research

Gardner and Lambert’s hypothesis that integrative motivation was associated with higher L2 achievement was challenged in the 1980’s and 1990’s by studies undertaken by Oller (1981) and others. These scholars believed that the classic L2 motivation research did not properly apply mainstream motivation theories which had proved valuable in the field of general education, and this had resulted in a growing gap between mainstream motivation and L2 motivation theories. They proposed that L2 motivation should be broadened by

integrating mainstream psychology theories (Clément, Dörnyei, & Noels, 1994; Ramage, 1986; Wen, 1997). They noted specifically that expectancy-value theories provided the most appropriate constructs for understanding motivation in academic settings and self-determination theory (SDT) provided a comprehensive framework to organize L2 motivation research.

Neurobiological approach in exploring L2 motivation. Friedemann and Schumann (1994) proposed to use a neurobiological approach in exploring L2 motivation. Schumann (1997) suggested that cognitive theory is a combination of self-determination and stimulus appraisal theories. The component of stimulus appraisal theories is rooted in his study of cognitive-neuroscience, which explains that the reason people want to learn is that learning new knowledge is like mental food for human beings, just as food is for organisms to survive. (Pulvermuller & Schumann, 1994; J. H. Schumann, 1990; J. H. Schumann, 2006). Schumann (1997) developed a model for the affective foundation of L2 acquisition that centers on a number of stimulus appraisal processes. He proposed a theory of how the psychology and stimulus appraisal influence L2 achievement (J. H. Schumann, 1997). Schumann's theory is relevant to this study investigating high school students' motivational factors to select challenging subjects like Chinese because it offers insights to interpret students' intellectual needs.

Dörnyei's contributions to L2 motivation research. Dörnyei, (1994) developed a comprehensive L2 motivation framework and summarized the major motivational constructs

into seven dimensions: (a) affective/integrative, (b) instrumental/pragmatic, (c) macro-context-related, (d) self-concept-related, (e) goal-related, (f) educational context-related, and (g) significant others-related.

At the start of the new century, Dörnyei conducted a comprehensive overview of L2 motivation studies and identified two emerging trends: Motivation studies were becoming more relevant for classroom-based research, and researchers were broadening L2 motivation research through incorporating theories from mainstream psychology (Dörnyei, 2000). He concluded that most motivation theories in the past focused on the “choice” or the “why” aspect, which is of limited relevance from an educational perspective. The effort and persistence dimensions of motivation are more relevant (Dörnyei, 2000). Dörnyei (2000) suggested that there was a need to study L2 motivation because motivation and attitude are the two key learner factors that “determined the rate and the success of L2 learning” (p. 425). In addition, he stated that the motivation basis of L2 achievement is different from that of mastery of other academic subjects, as L2 learning is not a socially neutral field. This is because L2 learning involves the adoption of another culture (Gardner, 2006). As a result, learners’ attitudes and beliefs towards the target language and culture play an important part in their motivation and L2 achievement.

Two Trends in Broadening L2 Motivation Study

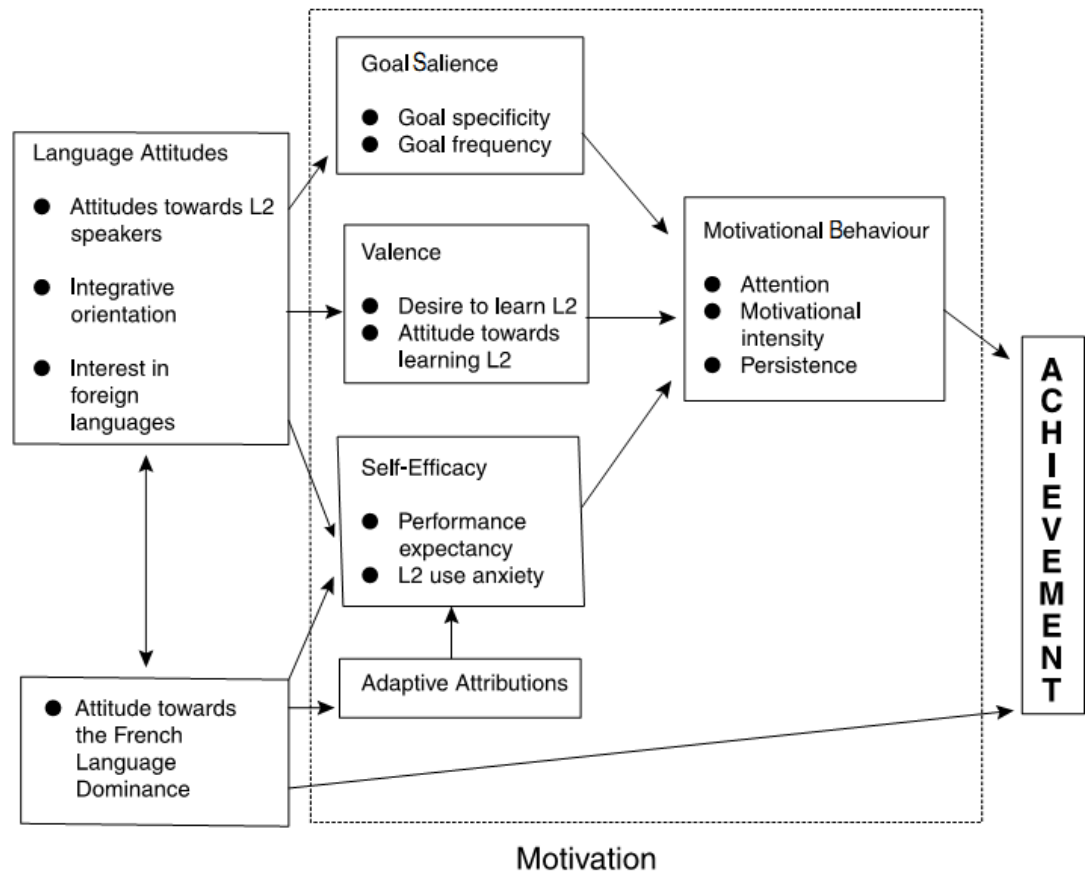
A Crookes and Schmidt (1991) study is representative of the first trend. They stated that L2 motivation study was limited by an almost exclusively social-psychological approach.

Moreover, L2 motivation study was not successful in distinguishing between the concepts of attitude and motivation. Therefore, they proposed that educational and psychological research as well as applied linguistics should inform L2 motivation research. They provided an agenda for research that might further L2 motivation studies. Their study set the tone for a number of other studies and advocated a motivation concept that teachers can use in their classroom (Crookes & Schmidt, 1991).

Gardner and Tremblay (1994) represent the second trend. They developed an L2 motivation model to incorporate cognitive concepts of goal salience, valence (incentive valence) and self-efficacy into Gardner's model (R. C. Gardner & Tremblay, 1994a). Their model claims that motivational intensity or the amount of motivation defines L2 achievement.

However, the present study discovered it was the type of motivation that significantly impacted students' L2 motivation sustainability. Figure 3 describes Tremblay and Gardner's model of L2 motivation (Tremblay & Gardner, 1995). Again, motivation intensity or the amount of motivation is stressed in this model, which differs from the SDT model. Tremblay and Gardner's model seems to have a weakness as it puts the French language learning context instead of L2 learning setting in the bottom box. It would be better to change "Attitude towards the French Language Dominance" in the bottom box to "Attitude towards the target language" to reflect the objective of the model as an L2 motivation model, which applies to all L2 learning settings.

Figure 3. Tremblay and Gardner's (1995) Model of L2 Motivation



(Dörnyei, 2000, p. 428).

Research on Sustaining L2 Learning Motivation

Ramage (1986) conducted a study which is particularly relevant to the present research. In this study, she examined the persistence of high school students' studying French and Spanish in learning L2 and investigated which motivational and attitudinal factors may predict the continuation of foreign language study beyond second level among them (Ramage, 1986). The primary questions that guided Ramage's study are the following: (a) What motivations do U.S. high school students have for studying foreign languages? (b) What

factors, including motivational, attitudinal, and others, are associated with the decision to continue or discontinue foreign language study after second year in high school? (c) How do these motivational and attitudinal factors differ for the two languages and three schools represented in the sample?

Ramage drew her samples from three high schools in the United States with a final sample size of 138. Her samples included 64 students studying French and 74 students studying Spanish. Only students from regular language classes participated in her study. Students who were native speakers of French or Spanish and students in honors or accelerated language classes were not included in the study in order to explore the motivations of average students studying a foreign language.

Ramage's goal was to identify the factors that distinguish continuing foreign language students from discontinuing students. Her study discovered that continuing students had more intrinsic interest in language study than discontinuers, but factors associated with continuation and discontinuation in L2 study beyond the second level differed among the three schools and the two languages.

Impact of Language Globalization Process on L2 Motivations

Dörnyei and Csizer (2002) categorized languages into “world language” versus “non-world language” and discovered the huge impact of world language status on learners' motivation (Dörnyei & Csizer, 2002). They discovered the trends and patterns of learners'

motivations as related to the status of a language through a longitudinal nationwide survey conducted on two occasions in the 1990s. Their findings are based on survey data collected from 8,593 pupils in 1993 and 1999.

The most important finding of Dörnyei and Csizer's study (2002) is "the documentation of a 'language globalization' process as reflected through its impact on L2 motivation" (p. 454). Dörnyei and Csizer found learners' motivation for learning a foreign language is heavily impacted by a language's world language or non-world language status.

Dörnyei and Csizer (2002) stated that the extent of unsuccessful foreign language learning in English-speaking countries such as the United States and the United Kingdom can be attributed to the fact that people there speak the world language as their mother tongue. According to Dörnyei and Csizer (2002), "The distinction between world language learning and non-world language learning helps to question the common claim that the British and Americans are worse language learners than people in other countries" (p. 455).

The insight of Dörnyei and Csizer (2002) about the huge differences in the motivations of learning a world language versus a non-world language provides a theory to explain why people want to learn one language instead of another. Their theory posits that when a language obtains a true status of "world language," people will be naturally motivated to learn this language, no matter how difficult the language may be. On the other hand, if a language has lost its status as a "world language" and has changed into a "non-world language," people's motivation to learn it may greatly decrease, no matter how easily

acquired this language may be. Based on this theory, a language's world language status in the learners' minds plays an important role in learners' motivation to choose to learn this language.

Motivation Research on Learning Less Commonly Taught Languages

Only a limited number of studies have been undertaken to examine the motivations for learning less commonly taught languages (LCTLs) including Chinese and Arabic. A number of scholars used an instrument developed by Wen (1997) to investigate students' motivational factors to learn less commonly taught languages or English as a Second Language (ESL), including Husseinali (2006), and Shaaban and Ghaith (2000).

Husseinali's study: motivation for learning Arabic. Husseinali (2006) conducted a study of U. S. college students' motivation for learning Arabic and found Arabic foreign language (AFL) heritage learners' motivations were significantly different from those of non-heritage learners. The study found AFL heritage learners in general were lacking motivation for learning Arabic.

Husseinali (2006) divided 120 college student participants into two groups according to their heritage backgrounds: Arab and Muslim heritage learners and non-heritage learners. Among these participants, 41.5% were Arab and Muslim heritage learners and 58.5% were non-heritage learners. Data were collected using a survey. Descriptive statistics were used to find out the initial motivations of each group. Later, inferential statistics (t- tests) were used

to compare the initial motivation between the two groups. The results of the study indicate that AFL learners have a variety of orientations motivating them to study Arabic. Significant differences were found between heritage and non-heritage learners on instrumental and identification orientations.

Cai's study: college students' motivation for learning Chinese. Cai (2011) conducted a study of an online learning community project for Chinese language learning at the college level. Using a mixed-method approach to investigate college students' motivation for learning Chinese before and after completing an online project, Cai found that the participants' motivation for learning Chinese mainly came from their beliefs that they were able to master Chinese, and mastering Chinese was important to them. The participants' motivation also came from their positive learning experience. Prior to Cai's study, few L2 motivation studies adopted a qualitative approach, and the study indicated the value of this approach for increasing understanding of the motivation for L2 study.

Expectancy-Value Theories

Expectancy-value theories were proposed by Vroom (1964) and Mitchell (1974), who defined expectancy-value theories as a function of value and expectancies. The theories hypothesize that motivation is driven by the interaction of ability, perceived probability to achieve success, and the perceived value of the task (Mitchell, 1974; Vroom, 1964; Wigfield, 1994; Wigfield & Eccles, 2000). Wen (1997) contributed to the L2 motivation research through incorporating expectancy-value theories in her study using an instrument to examine

Asian background college students' motivation for learning Chinese. Wen (1997) interpreted the concept of expectancy-value theory as "the effort exerted toward any particular action [...] determined by the valence [attractiveness] of outcomes and the expectation that the action would lead to the desired outcomes" (p. 236). Wigfield and Eccles (2000) developed an expectancy-value model of achievement motivation and choice, which defines that motivation is driven by ability beliefs, expectancies for success, and the perceived task value (Wigfield, 1994; Wigfield & Eccles, 2000).

Expectancy-value theories in L2 learning settings suggest that the attractiveness of learning outcomes, expectancies of learning ability, and probability of obtaining the desired outcomes greatly contribute to the motivation of students (Wen, 1997). Shaaban and Ghaith (2000) noted that expectancy-value theories suggest that "learners' motivation to acquire a second language is determined by their effort, perception of the degree of attractiveness of the goals [valence], perception of the probability of attaining the goals [expectancy], and appraisal of their ability to achieve the goals" (p. 633).

Dörnyei (2000) states that expectancy-value theories are based on the principle that "motivation to perform various tasks is the product of two key factors: the individual's expectancy of success in a given task and the value the individual attaches to success at that task" (p. 433). In the L2 learning setting, if learners feel the outcome of learning a language is desirable and within their ability, they are likely to initiate the learning (Dörnyei, 2000).

Applying expectancy-value theories in L2 motivation study: Wen's study. Wen (1997)

developed an instrument to measure students' motivational factors and desired outcomes to learn Chinese based on Gardner's socio-educational model and expectancy-value theories. The purpose of her study was to examine why some students persist in Chinese language study while others do not. One hundred and twenty-two students from six Chinese classes at two U.S. universities participated in Wen's study. Seventy-seven Asian or Asian-American students were included. Among the participants, 92% could speak or understand a Chinese dialect when they were enrolled in the Chinese classes. The survey was administered during regular class sessions. Wen (1997) used regression analysis to examine factors discovered through the factor analysis and to determine which factors play a significant role in students' L2 achievement. She also used t-tests to compare scores of beginning and intermediate level students.

Wen's instrument contains two components: (a) a two-part questionnaire, that the first part measures the motivational variables and the second part measures learners' desired learning outcomes; and (b) students' midterm and final examination scores. Wen (1997) used students' examination scores as the dependent variable and all the motivational factors as the independent variables in regression analysis in order to determine which motivational factors best predict Chinese language achievement. Three researchers used Wen's instrument to study students' motivations for learning Arabic and English as a second language (Husseinali, 2006; Shaaban & Ghaith, 2000). Table 3 describes Wen's survey instrument.

Table 3. *Wen's Survey Instrument Overview*

| Component I | Variables / factors to be measured: | Items | Item scale | Remark |
|---|--|------------------------|------------------|--|
| Part I. | Demographic information | 1 to 7 | N/A | |
| Part II. Motivation variables: Items 1 to 18 (3 subscales) | 1. Integrative motivation | 1, 2, 3, 4, 6 | 1 to 7 | Based on the Attitude /Motivation Test Battery (Gardener, 1985) and questionnaire by Ely (1986). |
| | 2. Instrumental motivation (broader than Gardner's concept) | 5, 7, 8, 9, 10, 11, 12 | 1 to 7 | |
| | 3. Expectations of learning strategies & efforts | 13, 14, 15, 16, 17,18 | multiple choices | |
| Part III. Desired learning outcomes (3 subscales) | 1. Valence: how significant students view the outcomes from learning Chinese | 1 to 6 | 1 to 7 | Based on expectancy theories by Vroom (1964) and Mitchell (1974). |
| | 2. Expectancy: expected probability to achieve the desired outcome. | 1 to 6 | 0 to 100% | Formula: F(Motive * ability) Motive = valence * expected outcome; Ability = expected ability. |
| | 3. Ability: perceived ability to achieve the desired outcome. | 1 to 6 | 0 to 100% | |
| Component II | Midterm & final exam scores | | | Dependent variable in stepwise multiple regression procedure |

(Wen, 1997).

Part I of Wen's survey instrument contains seven items to obtain biographical information about the participants. Part II consists of 18 items to obtain information about

participants' motivation to learn Chinese. Responses in Part II ranged from 1 (strongly disagree) to 7 (strongly agree) on a Likert scale for the first 12 items and four multiple choices for the last six items. Part III contains 18 items to obtain information on desired learning outcomes in three areas: valence, expectancy, and ability (Wen, 1997). In Part III,

- Items 1 to 6 measure valence, or how significant students view the outcomes from learning Chinese. Responses ranged from 1 (very insignificant) to 7 (very significant) on a Likert scale.
- Items 7 to 12 measure expectancy, or students' expected probability of achieving the above outcomes in the Chinese class. Responses ranged from 0% to 100% probability.
- Items 13 to 18 measure students' perceptions of their ability to achieve the above outcomes. Responses ranged from 0% to 100% probability.

Possible flaws in Wen's instrument. The second component of Wen's instrument used students' examination scores as the sole dependent variable and all the motivational factors as the independent variables or predictors to determine which motivational factors best predict students' Chinese language achievement. This approach may be flawed. Foreign language learning is an immensely complex multidimensional topic, and in addition to motivational factors, a variety of other factors, including aptitude and prior L2 knowledge, contribute to students' examination scores and L2 achievement. In other words, gifted language learners and students with solid prior knowledge of the target language may achieve high examination scores even though they do not have the motivation to learn the language. A student's high L2

achievement may be attributable to his or her L2 aptitude or prior knowledge in the target language and have little connection with his or her motivation. In the case of Wen's survey, examination scores are associated with aptitude, and the use of examination scores as the sole dependent variable to examine which motivational factors contribute to the students' L2 attainment may be flawed.

Moreover, language aptitude or ability has no association with motivation. According to Gardner's socio-educational model (Gardner, 2000) on the role of aptitude and motivation in L2 learning (see figure 1), ability or language aptitude lies outside the area of motivation and is associated with examination scores. As aptitude is not associated with motivation, the use of examination scores to study the relationship between motivation and L2 achievement may not be valid.

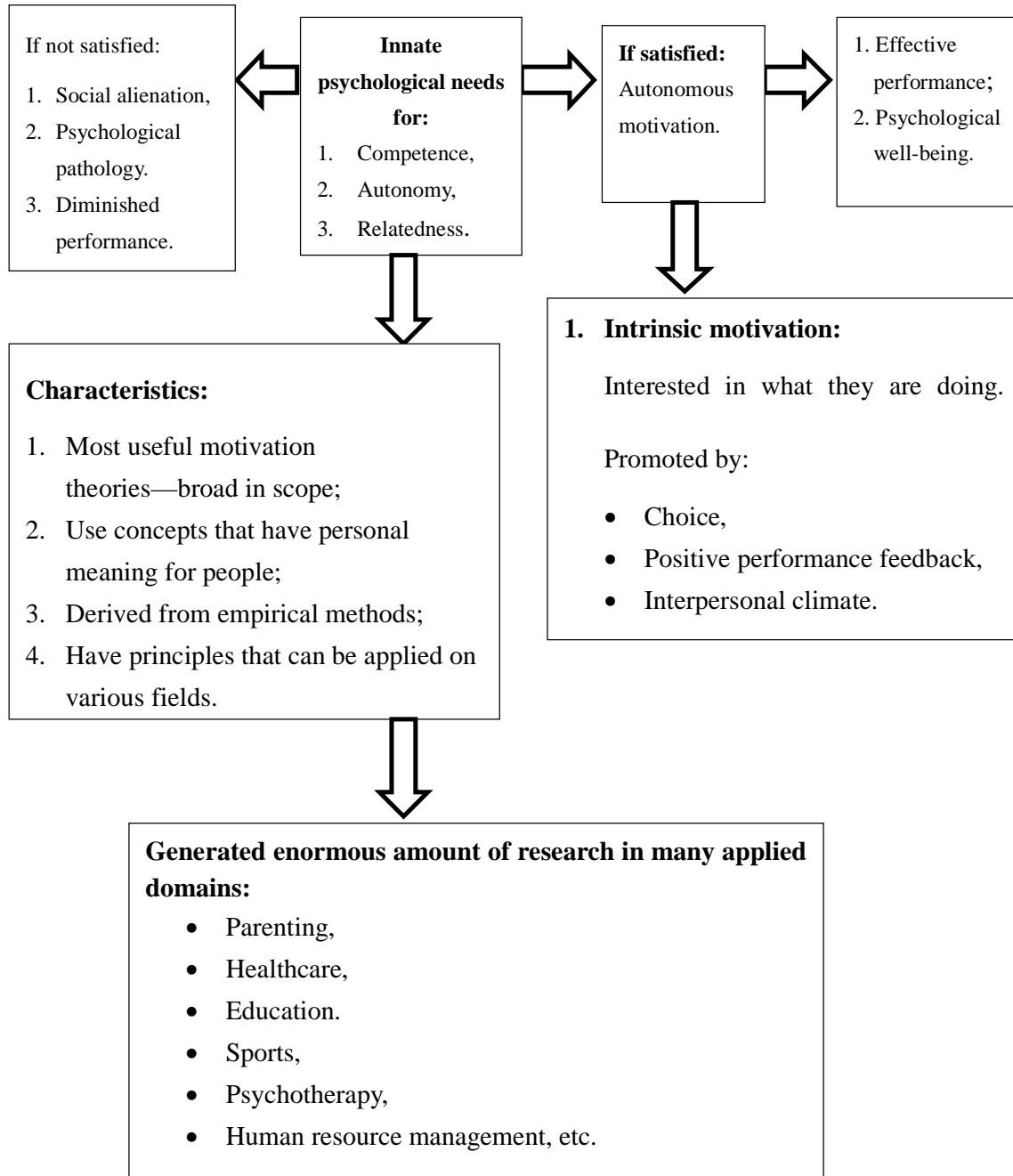
Despite its potential flaws, Wen's instrument has subsequently been used by three other researchers to study students' motivations for learning Arabic and English as a second language (Husseinali, 2006; Shaaban & Ghaith, 2000).

Self-Determination Theory

Self-determination theory (SDT) provides a framework not only to organize L2 motivation research but also a broad theoretical base to interpret and understand the motivation for learning less commonly taught languages (LCTLs). SDT focuses on the social-contextual condition that facilitates the natural processes of self-motivation and

healthy psychological development. The theory, proposed by Ryan and Deci (1980), postulates that human beings have three innate psychological needs: competence, autonomy, and relatedness. Satisfying these three needs will enhance self-motivation, performance, and mental health. On the other hand, failure to satisfy these three innate needs will lead to decreased motivation, social alienation and psychological pathology, such as depression, alcoholism or drug addiction (Deci & Ryan, 1980; Deci & Ryan, 2000; Deci & Ryan, 2008a; Deci & Ryan, 2008b; Deci, Vallerand, Pelletier, & Ryan, 1991). However, the three innate psychological needs do not seem to carry equal weight. Among them, the need for relatedness appears to be greater than the other two. For example, in order to preserve relatedness, or relationships, people may sacrifice needs for competence and autonomy, often at the cost of their psychological well-being (Ryan & Deci, 2000). Figure 4 summarizes the key components of SDT.

Figure 4. Key Points of Self-Determination Theory (SDT)



The theory further states that there are three types of motivation: amotivation, controlled motivation, and autonomous motivation (Noels, et al., 2001; Noels, et al., 2003). Each type leads to a different form of academic performance (Roth, Assor, Niemiec, Ryan, & Deci,

2009). Amotivation and feelings of anxiety produce poor academic performance. Controlled motivation leads to rigid focus on test grades with no interest in learning knowledge not directly related to tests. Autonomous motivation leads to enjoyment of learning and interest in learning regardless of its connection to test grades (Roth et al., 2009).

Empirical testing of the theory has provided the following understanding. Tangible rewards undermine intrinsic motivation (Deci & Ryan, 2008a; Deci & Ryan, 2008b). In other words, rewards make people lose interest in the task. Therefore, intrinsic and extrinsic motivations are not additive. Choice, positive feedback, and competition enhance intrinsic motivation. Threats of punishment, deadlines, surveillance, and evaluation decrease intrinsic motivation. Interpersonal climate or peer relationship and interaction can also affect intrinsic motivation. Materialism and other extrinsic life goals have detrimental effects on psychological well-being.

Intrinsic and extrinsic motivations. Intrinsic motivation (IM) is defined as the “inherent tendency to seek out novelty and challenges, to extend and exercise one’s capacities, to explore, and to learn” (Ryan & Deci, 2000) and is the “most self-determined form of motivation” (Noels et al. 2001). Ryan and Deci (2000) describe intrinsic motivation as a human being’s “natural inclination” toward mastery and exploration, which is essential to cognitive and social development and represents a principal source of enjoyment (p. 70). Deci and Ryan (2000) also proposed cognitive evaluation theory as a sub-theory within SDT to specify factors explaining variability in intrinsic motivation (Deci & Ryan, 2000, p. 70). Their theory offered insights to this study’s Research Question 1 regarding why high school

students enjoy the challenge of learning Chinese.

Extrinsic motivation (EM) refers to “the performance of an activity in order to attain some separable outcome” (Ryan & Deci, 2000, p. 71). Noels et al. (2001) stated that in the context of L2 learning, extrinsic motivation (EM) includes three levels: external regulation, introjected regulation, and identified regulation. These scholars noted that the most self-determined type of EM in the L2 context is identified regulation, which argues that students’ motivation to learn an L2 comes from a personal choice and the perceived value of learning the target language. Learners will persist in learning as long as they perceive that the value of learning the language is important. External and introjected regulations refer to the sub-type of EM where students’ L2 learning motivation comes from pressure or guilt. Once these external pressures are removed, students will stop learning. This theory provides insights to this study’s Research Question 2, regarding factors that sustain students’ L2 learning motivation.

Amotivation refers to the learner’s lack of motivation.

Self-determination theory and the motivation for learning Chinese. Chinese heritage schools serve to satisfy ethnic Chinese families’ needs for relatedness by providing valuable social networking opportunities. The motivations of Chinese parents to send their children to Chinese heritage schools come from three areas: (a) to maintain their language and culture; (b) to maintain a bilingual perspective since Chinese is a universal language and is gaining popularity; and (c) to benefit from the values of Chinese heritage schools in providing social networking opportunities for parents and children (Liao & Larke, 2008). The role of Chinese

heritage schools in satisfying Chinese families' needs for relatedness may explain why Chinese parents and children are motivated to attend Chinese heritage schools.

Noels (1994) proposed to integrate SDT into L2 motivation studies as a means to broaden and advance L2 motivation research. Comanaru and Noels (2009) investigated 145 students' motivation for learning Chinese using the self-determination theory (SDT). The 145 participants were college students enrolled in credit-bearing Chinese courses. They found that learners' motivation came from a sense of control over the learning process, a feeling of connection with the Chinese community, and a feeling that learning Chinese was personally meaningful and fun (Comanaru & Noels, 2009). Their study discovered few differences in the motivational factors between Chinese heritage learners who spoke Chinese as a mother tongue and those who spoke English. This indicates that subgroups of heritage language learners may be more alike in their motivations regardless of their Chinese proficiency (Comanaru & Noels, 2009).

Cultural identity: need for relatedness. People's need for relatedness is also linked to a desire to maintain a strong cultural identity, with its own implications for human beings' achievement and well-being (Portes & MacLeod, 1996; Portes & Hao, 1998; Portes & Zhou, 1994). An empirical quantitative study conducted by Portes and Hao (1998) examined patterns of language adoption by over 5,000 second-generation immigrant students in South Florida and Southern California and found a consistent positive association between fluency in two languages and academic achievement (Portes & Hao, 1998). They noted that "after

other predictors were controlled for, fluent bilinguals retained a strong advantage in all measures of academic performance. For example, the bilingual students had a net 8 percent advantage in standardized math and reading scores over their mono-lingual peers, and their GPAs were significantly higher” (Portes & Hao, 1998, p. 290).

Language reflects one’s cultural identity and helps people satisfy their needs for relatedness. Losing a first language has unexpected impacts, including the loss of cultural identity, which may negatively affect students’ achievement and social upward mobility (Lee & Zhou, 2004; Moses, 2000). According to the studies edited by Lee and Zhou (2004), ethnic groups which demonstrate strong academic achievements and successful integration into the American society all possess a strong, secure ethnic cultural identity. For example, Chinese immigrant youth do not emulate American peers and believe in the superiority of American culture. They do not feel American culture is better than their own and do not care whether they are accepted by their American peers. In fact, Chinese immigrants in the United States tend to call Americans “foreigners,” which may be a way to assert and secure their cultural identity. In this way, Chinese immigrant youth are immune from the negative influence of the mainstream culture in the United States and maintain their motivation and focus on academic studies (Lee & Zhou, 2004).

Maintaining one’s cultural identity serves to meet the basic psychological need for relatedness, as suggested by SDT, which in turn promotes students’ success in adapting to a new environment.

Goal Theories

Goal theories refer to the achievement goal theory of motivation. It is one of the three dominant approaches in motivational psychology research (Dörnyei, 2000). Achievement goal theory states that learners' achievement goals determine their accomplishments as their goals influence the quality, timing, and appropriateness of cognitive strategies (Covington, 2000). Ames, Dweck, and Urdan contributed to the establishment of achievement goal theory (Ames, 1992; Covington, 2000; Urdan & Maehr, 1995).

Chapter Summary

This literature review discussed the development of L2 motivation studies through the following lenses:

- The socio-educational model and key L2 motivation theories pioneered by Robert C. Gardner (R. C. Gardner & Lambert, 1959a; R. C. Gardner & Lambert, 1965b; R. C. Gardner, 1968a; R. C. Gardner et al., 1978; R. C. Gardner, Masgoret, Tennant, & Mihic, 2004a);
- Dörnyei's contributions to L2 motivation research;
- The theory of language globalization process and its impact on L2 motivation proposed by Dörnyei and Csizer (2002);
- The development of L2 motivation research including expectancy-value theories and SDT, and their implications for the motivation research on learning the Chinese

language and cultural identity;

- Research on sustaining L2 motivation; and
- Goal theories.

This review of the literature suggests that students may be motivated to choose to learn Chinese because their innate psychological needs for relatedness, competence or autonomy will be met through taking up the challenge of learning this language. In addition, the globalization process of the Chinese language in terms of its changing status into a world language may significantly motivate U.S. high school students to learn this language. Thus, SDT and the hypothesis of language globalization process underpinned the present study and addressed the two research questions, which examined factors that motivated U.S. high school students to choose to learn Chinese and factors that sustained students' motivation.

The goal of this study is to extend the current understanding of motivations for learning LCTLs through applying SDT and expectancy-value theories to investigate factors that motivate U.S. high school students to choose to learn Chinese and the factors that sustain their interest in learning this language. The present study also attempts to test the hypothesis of the language globalization process proposed by Dörnyei and Csizer (2002) that suggests a language's status as a world language plays an enormous role in impacting learners' motivation to choose to learn it.

Chapter 3 Methods

Purpose of the Study

This study has two objectives. One is to capture U.S. high school students' perceptions of the factors that motivate them to choose to study Chinese and the possible differences that may exist in motivations between ethnic Chinese and non-Chinese background students. The second is to investigate the factors that sustain students' interest in learning Chinese beyond meeting the high school world language graduation requirements. The specific research questions guiding the present study are

1. Which motivational factors influence New Jersey high school students to choose to learn Chinese to meet the high school graduation requirements?

(a) Does the ethnic background of the students influence second language choice?

(b) Is there a difference in the motivational factors by Chinese class levels?

2. Which factors sustain students' learning interest and help them persist in learning Chinese beyond meeting the high school graduation requirements?

(a) Do the factors that sustain students' learning interest differ by ethnic backgrounds?

This chapter reviews the research design adopted for the study and the methods and instruments used to collect data to answer the research questions.

Research Design

This study uses an explanatory mixed-method design (also called a two-phase design approach), that requires the researcher to first collect and analyze quantitative data and then collect and analyze qualitative data to help explain or elaborate on the quantitative results (Creswell, 1994). The rationale for this approach is that the quantitative data and results will show patterns and trends that qualitative data will refine and explain thus adding depth and breadth to the study.

The mixed-method nature of the study required a direct involvement in collection and interpretation of qualitative data. Patton (2002) notes that the researcher's prior knowledge and experience can either enhance or reduce the credibility of a study. The researcher is a native Chinese speaker who has worked and taught in both China and the United States. For the past 18 years, the researcher has been professionally employed as an ESL, Chinese language and Chinese bilingual teacher in the United States, which has provided her an understanding of the Chinese language learning experience of students in the United States and of the second language learning experiences of students from many different ethnic backgrounds. This experience as a global educator has both been a source of motivation to undertake this study, and contributes to the credibility of the interpretation of the qualitative data collected for this study. In addition, to reduce the possibility of researcher bias, two

doctoral-degree-holding educators were enlisted to check the themes and patterns derived from the data and correct possible errors.

Phase 1. The first phase of the research was a survey of students in two high schools in New Jersey, where a total of more than three hundred students from grades 9 through 12 were studying Chinese as a second language. The survey collected data on students' ethnic and cultural backgrounds, their motivations for learning Chinese, and their perceptions of the factors that sustained their interest in learning Chinese beyond meeting the high school graduation requirements.

A survey instrument developed by Wen (1997) was modified and used for the present study. Wen (1997) designed her instrument by modifying a published instrument developed by Gardner (1985), a pioneer and authority in the field of foreign language motivational studies (R. C. Gardner, 1985; R. C. Gardner & Tremblay, 1994b). Wen's study investigated only Asian and Asian-American college students' motivational factors to choose Chinese as their foreign language and their desired learning outcomes. The present study extended Wen's research findings by including American high school students from non-Asian and non-ethnic Chinese backgrounds. Responses to the survey provided descriptive statistical data together with qualitative data from two open-ended questions, which invited participants to explain the most important factors that sustained their interest in learning Chinese.

Phase 2. Once the data from the survey instrument was analyzed, one focus group discussion was conducted in each high school to gain clarity concerning any of the patterns

that emerged from the survey responses. Each focus group consisted of 14 or 15 students who represented both non-Chinese (NC) and ethnic-Chinese (EC) background students from both the advanced and intermediate level Chinese language classes. An open discussion asking them to comment on their peers' Chinese language learning experiences and the factors that sustained students' interest in learning Chinese provided in-depth information to address Research Question 2.

In addition, the researcher interviewed three high school Chinese language teachers who were teaching at the research sites when the study was being conducted. The researcher interviewed the teachers with questions similar to those asked of the student focus groups to explore their perceptions of the factors that motivated students to learn Chinese and the factors that sustained students' interest. The purpose of using similar interview questions for both student focus groups and teachers was to compare and contrast their perceptions.

Instruments

Survey. The purpose of the survey was to collect information from the students learning Chinese at two high schools in New Jersey regarding the factors that motivated them to learn Chinese and factors that sustained their learning interest or motivation. The survey was a modified version of an instrument developed by Wen (1997). Table 4 provided details of the survey items.

Table 4. Student Questionnaire Survey Instrument Overview

| <i>Components</i> | <i>Variables / factors to be measured or identified:</i> | <i>Items</i> | <i>Question scale</i> |
|---|--|--------------|-----------------------|
| Part I. General information | Demographic information | 8 | N/A |
| Part II. Motivation information (3 subscales) | 1. Integrative motivation | 6 | 1 to 7 |
| | 2. Instrumental motivation | 6 | 1 to 7 |
| | 3. Effort | 6 | multiple choices |
| Part III. Information on learning outcomes (3 subscales) | 1. Valence: how significant students view the outcomes from learning Chinese | 6 | 1 to 7 |
| | 2. Expectancy: expected probability to achieve the desired outcome | 6 | 0 to 100% |
| | 3. Ability | 6 | 0 to 100% |
| Part IV. Open-ended question | 1. Reason to choose or not to choose Chinese to learn | 2 | N/A |
| | 2. Factors sustaining students' learning interest | | |

Part I contained eight items to obtain biographical information about the participants, which included whether or not they were of ethnic Chinese background.

Part II consisted of 18 items to obtain information about participants' motivational factors for learning Chinese. Responses ranged from 1 (strongly disagree) to 7 (strongly agree) on a Likert scale for the first 12 items and four multiple responses for the last six items.

Part III contained 18 items to obtain information in three areas: valence, expectancy, and ability.

1. Items 1 to 6 measured valence, a measure of the importance that students assigned to the outcomes of learning Chinese. Responses ranged from 1 (very insignificant) to 7 (very significant) on a Likert scale.
2. Items 7 to 12 measured expectancy, a measure of students' perceived probability that they would achieve the desired outcomes from the Chinese class. Responses ranged from 0% to 100% probability.
3. Items 13 to 18 measured students' perceptions of their ability to achieve the desired learning outcomes. Responses ranged from 0% to 100% probability.

Part IV contained two open-ended questions to collect students' perceptions of factors that motivated and sustained their interest in learning Chinese.

The details of the survey instrument are presented in [Appendix A](#).

Focus group interviews. Gall et al. (2003) analyzed both the advantages and disadvantages of using surveys versus interviews in conducting research, noting that the two approaches could complement each other. Their insights provided guidance in the present study's adoption of focus group interviews to complement the survey investigation. Two student focus group discussions were conducted after the survey was completed, one at each high school. The details of the focus group interview guide are in [Appendix B](#).

Teacher interviews. To further triangulate the study, in-depth individual interviews were conducted with three teachers of Chinese at the research sites. “Teachers, their attitudes and methods of teaching can have an important effect on outcomes for students” (Sperandio, 1998). The purpose of undertaking these interviews was to compare teachers’ perceptions of the motivational factors that influenced their students to learn Chinese and to continue with the language study beyond simply meeting the graduation requirement with the perceptions of the students, as indicated by the survey. The teacher interviews were conducted in parallel with the focus group interviews after the survey had been completed. The details of the teacher interview guide are included in [Appendix C](#), and the teachers’ consent letter is included in [Appendix E](#).

Participants

Survey participants. Two hundred and seventeen students learning Chinese as a world language in grades 9 through 12 at two high schools in central New Jersey participated in the survey. Parental consent was sought from all students enrolled in Chinese language classes in spring 2012. Two hundred and seventeen usable complete surveys were collected, which was sufficient for the statistical analysis in the research design. Participants included both ethnic-Chinese and non- Chinese students with varying lengths of language learning experience.

Student focus group participants. Focus group participants were selected to ensure the representation of students of both ethnic-Chinese and non- Chinese backgrounds, with

approximately equal numbers of male and female students. All participated with their parents' consent. Each focus group consisted of 14 or 15 participants from Chinese levels 2 to Advanced Placement (AP).

Teacher interview participants. Three teachers who were teaching Chinese at the research sites were recruited to be interview participants based on their consent. They signed the consent letters before the interview. All of them were females with various lengths of teaching experience. Among them, two hold doctoral degrees.

Data Collection

All three data sets – the survey, student focus group interviews, and individual teacher interviews – were collected in May, 2012.

Survey. The researcher first sought official permission from the school administration to conduct the survey, focus group and teacher interviews. Then the researcher obtained parental consent for student participation in the survey and focus group interviews. Once the consent letters were returned, a list of students eligible to participate in the study was compiled.

A prearranged class time was set up for the distribution and collection of the surveys with the permission of the three teachers teaching the Chinese classes at the two high schools and the school administration. Every student was given the option to participate or not in the survey and/or the focus group interviews. The Chinese language teachers at the research sites helped collect the completed surveys.

Before distributing the survey, the researcher explained to the students that the survey responses were anonymous in an attempt to avoid bias and keep their identities confidential. After collecting the surveys, the researcher made sure that no student names appeared on the survey questionnaires and erased any possible identifying particulars from the questionnaires. Then the researcher assigned each returned questionnaire an ID number for tracking purposes. The identified themes from the two open-ended survey questions were checked and verified by two doctoral-degree-holding professionals to prevent researcher bias and correct possible human errors.

Student focus groups. Every student had the option to participate in the focus group discussions by indicating a choice on the parental consent forms. If both the students and their parents had consented, the students were invited to participate in the focus groups. For details of the focus group invitation letter and consent form, please see [Appendix D](#).

Each focus group discussion was conducted for one hour after school in a classroom. A semi-structured interview guide was developed to conduct the group discussions based on the feedback from the participants. Two digital recorders were used to record the conversations simultaneously to prevent technical mishaps and ensure the recording quality. For the focus group interview guide, please see [Appendix B](#).

Teacher interviews. The three Chinese language teachers at both high schools signed letters consenting to participate. For the teachers' consent letter, please see [Appendix E](#). For the teacher interview guide, please see [Appendix C](#).

Teacher interviews were arranged at the time convenient to them. To prevent technical mishaps and ensure the quality of the recording, two digital recorders were used simultaneously. The researcher transcribed the teacher interviews manually as soon as possible to prevent errors. Since the purpose of the teacher interviews was to provide greater insight into the patterns that emerged from the survey, teachers were asked questions similar to those of the student focus group participants to compare their perspectives. The analysis of the teacher interviews followed the same procedure as for the focus group interviews. The results were verified by a third party to discover and correct possible errors and prevent researcher bias.

Data Analysis

For the survey. The data analysis procedure developed by Husseinali (2006) and Wen (1997) was referenced to conduct the data analysis using the following five techniques. For the convenience of data analysis, the data were regrouped as follows.

First, frequency analysis was conducted to determine the percentage of students agreeing/disagreeing with each of the 12 items on Part II of the survey. A response of 5 or above was considered as Agree, a response of 4 was considered as Neutral and a response 3 or below was considered as Disagree. The researcher reported frequency counts of all learners as one group first and later presented the percentage of EC-background students agreeing with each one of the 12 items as one group and NC-background students as another group. The same procedure was repeated to compare responses from intermediate and

advanced level students. The purpose of the above frequency analysis was to address Research Question 1 through investigating motivational factors for learning Chinese and the difference between EC and NC-background students and between intermediate and advanced level students.

Second, closely related items on the survey were grouped into three broad motivational factors: (a) instrumental motivation, (b) integrative motivation, and (c) expected effort. Grouping items into motivational factors facilitates the investigation of which factors motivated students for learning Chinese.

Third, independent t-tests were conducted to determine if EC and NC-background students responded differently on each of the above three broad motivational factors. Independent t-tests were used to discover motivation differences between different groups (Wen, 1997). In this study, an independent t-test was used to discover motivation differences between EC and NC-background students who chose to learn Chinese. The hypothesis is that there will be differences between EC and NC-background students in their motivational factors for learning Chinese.

Fourth, the researcher conducted the analysis of correlations of the two sets of variables to identify whether there were any significant correlations between the following variables:

1. Correlations between expectancy and three motivational factors for ethnic Chinese background students. In this study, expectancy is defined as students' expected

probability of achieving six desired outcomes in learning Chinese: (a) speak Chinese fluently, (b) communicate in basic Chinese, (c) develop reading skill, (d) receive A Grade, (e) understand Chinese people, and (f) learn Chinese culture. Three motivational factors are defined as instrumental, integrated, and expected effort.

2. Correlations between expectancy and three motivational factors for NC-background students.

The purpose of conducting the correlation analysis was to test the expectancy-value theories through exploring whether students' motivations for learning Chinese are related to their perceived probability of succeeding in learning. Expectancy-value theories claim that motivation is driven by ability beliefs, expectancies of success, and the perceived task value (Wigfield, 1994; Wigfield & Eccles, 2000).

Fifth, a multiple regression analysis was conducted to determine which motivational factors played a significant role in sustaining students' motivation or interest in learning Chinese. The purpose of this test was to seek answers to Research Question 2 through identifying factors that significantly impact students' years continuing in Chinese language programs. The three motivational factors and students' ethnic backgrounds were designated as the independent variables, while their years continuing in the Chinese program were set as the dependent variable. The analysis attempted to identify factors that significantly impacted students' years continuing in Chinese programs. The general linear model in the Statistical

Package for the Social Sciences (SPSS) addresses the unbalanced sample design should sample size across the group be unequal.

For the focus groups. One focus group interview was held in each of the high schools. The researcher used qualitative data analysis techniques to code the interview data for themes related to the research questions and explanations of the patterns emerging from the survey. After the completion of the focus group discussions, the researcher transcribed the recordings manually and erased any identifying particulars on the recordings. Then the researcher read and analyzed all of the qualitative data, coding the data for themes that addressed the research questions and survey results, and then coding within the themes to identify subthemes. To explore common themes or patterns, the researcher categorized the coded themes and totaled the frequency counts and percentage of the themes by the category. To prevent researcher bias and mistakes, the researcher invited two doctoral-degree-holding educators to independently code the data. Differences between their interpretations and those of the researcher were discussed and adjustments were made to the researcher's analyses.

For the teacher interviews. The researcher used the same qualitative data analysis techniques as for the focus groups to code the teacher interview data for themes that addressed research questions and the results of the survey. To prevent researcher bias and insure the validity of the analysis, the researcher invited two doctoral-degree-holding educators to check the themes and analysis of all the qualitative data from the teacher interviews, focus group interviews, and open-ended questions.

The analysis results are presented in the following tables:

- Table 5. Survey Participants' Background Information.
- Table 6. Participants' Years of Studying Chinese.
- Table 7. Overall Response Frequencies to Items 1 – 12 (All participants).
- Table 8. Positive Response Percentage: EC versus NC participants.
- Table 9. Positive Response Percentage by Chinese Levels.
- Table 10. T-Test Results: Mean and Standard Deviation of the Motivational Factors: EC versus NC Groups.
- Table 11. T-Test Results: EC versus NC Groups (to find out if there are significant differences between the two groups in terms of three broad motivational factors).
- Table 12. Correlations between Motivational Factors and Expectancy: EC versus NC Groups.
- Table 13. Regression Analysis: Factors Impacting the Sustainability of Motivations for Continuing in Chinese Programs.
- Table 14. Responses to Open-Ended Question 1: Reasons to Study Chinese Again (Overall).
- Table 15. Responses to Open-Ended Question 1: Reasons not to Study Chinese Again.
- Table 16. Responses to Open-Ended Question 1: EC versus NC Groups: Reasons to Study Chinese Again.
- Table 17. Responses to Open-Ended Question 1: Intermediate versus Advanced Levels: Reasons to Study Chinese Again.

- Table 18. Responses to Open-Ended Question 2: Factors Sustaining Interest in Learning Chinese (Overall Responses).
- Table 19. Responses to Open-Ended Question 2: Factors Sustaining Interest in Learning Chinese: EC versus NC Students.
- Table 20. Responses to Open-Ended Question 2: Factors Sustaining Interest in Learning Chinese: Intermediate versus Advanced Levels.
- Table 21. Focus Group Participants' Information.

SPSS statistical software and Excel were used to conduct the above statistical analysis.

Chapter Summary

This chapter described the research design and research methodology adopted for the present study, which includes an explanatory mixed-method approach involving the collection of quantitative data to establish patterns across the student population and the use of qualitative data to explain these patterns. A survey instrument developed by Wen (1997) was used to collect quantitative and qualitative data from 217 students. After analysis of the survey data, two student focus group discussions and three individual teacher interviews were conducted to gain understanding of the patterns that emerged from the survey.

Chapter 4 Results

This chapter presents the results of a survey investigating 217 U.S. high school students' motivational factors in learning Chinese and the factors that sustain their motivations and interest in learning this language. The survey contained a questionnaire with an open-ended question component to provide both quantitative and qualitative data. In addition, this chapter provides the results of interviews of two student focus groups and three teachers conducted after the analysis of the survey responses was completed. These interviews serve to triangulate, verify, extend, and explain the findings from the survey and to add breadth to the study.

Organization of the Research Results Presentation

The research results for this study are presented in the following format.

1. Quantitative findings from the analysis of the survey results.
2. Qualitative investigation results:
 - 1) Themes from student responses to two open-ended survey questions;
 - 2) Themes from student focus group interviews;
 - 3) Themes from teacher interviews.

Quantitative Findings from the Survey Results

Two hundred and seventeen students enrolled in sixteen Chinese language classes at two high schools in central New Jersey participated in the survey of this study. They were from

grades 9 through 12 and placed in Chinese classes ranging from levels 2, 3, 4, 5, to Advanced Placement (AP) (college level) according to their Chinese language proficiency. A total of 122 of the participants indicated they were of ethnic Chinese (EC) background, and 95 indicated they came from non-Chinese (NC) backgrounds. There were 109 female and 108 male students. Table 5 summarizes the participants' background information.

Table 5. Survey Participants' Background Information

| | Item | <i>n</i> | Percentage |
|-------------------|-------------|----------|------------|
| Ethnic Background | Chinese | 122 | 56% |
| | Non-Chinese | 95 | 44% |
| | Total | 217 | 100% |
| Gender | Male | 108 | 50% |
| | Female | 109 | 50% |
| | Total | 217 | 100% |
| Grade Level | 9th | 63 | 29% |
| | 10th | 60 | 28% |
| | 11th | 53 | 24% |
| | 12th | 41 | 19% |
| | Total | 217 | 100% |
| Chinese Level | II | 58 | 27% |
| | III | 45 | 21% |
| | IV | 55 | 25% |
| | V | 37 | 17% |
| | AP | 22 | 10% |
| | Total | 217 | 100% |

Note. *n* = number of student participants.

Participants' years of studying Chinese in the United States are presented in Table 6. Of the 217 participants, 29% reported having been enrolled in Chinese programs from zero to four years; 63% reported being enrolled in Chinese programs from five to eight years; 7% had been enrolled in Chinese programs from nine to 11 years and 1% did not provide data.

Table 6. *Participants' Years of Studying Chinese*

| Years in Chinese | <i>n</i> | Percentage |
|------------------|----------|------------|
| 0 | 1 | 0% |
| 1 | 18 | 8% |
| 2 | 19 | 9% |
| 3 | 10 | 5% |
| 4 | 16 | 7% |
| 5 | 22 | 10% |
| 6 | 47 | 22% |
| 7 | 45 | 21% |
| 8 | 22 | 10% |
| 9 | 12 | 6% |
| > 10 | 3 | 1% |
| Did not respond | 2 | 1% |
| Total | 217 | 100% |

Note. *n* = number of student participants.

The first 12 items on the questionnaire were designed to address the first research question (RQ1) and its sub-questions, and to distinguish between two types of motivation: integrative and instrumental. Integrative motivation is powered by students' desire to identify themselves with the target culture and language, while instrumental motivation is generated from the perceived practical benefits of learning the target language. Two methods were used to analyze student responses to address RQ1: response frequency and the independent *t*-test.

Results of the response frequency analysis. Response frequency analysis of the first 12 items was conducted to address RQ1 and its sub-questions: "Which motivational factors influence New Jersey high school students to choose to learn Chinese to meet the high school graduation requirements?"

- (a) Is there a difference in the factors that influence language choice by the ethnic

background of the students?

(b) Is there a difference in the motivational factors by Chinese class levels?"

The first 12 items in the survey examined students' integrative motivation (items 1 - 6) and their instrumental motivation (items 7 - 12). The analysis compared both EC and NC-background students' responses to examine any differences in the two types of motivation between the two groups.

Similar motivational factors: both EC and NC groups. When students ranked the reasons for studying Chinese provided in the survey, both EC and NC groups reported the same set of motivations. Those ranked highest were "Converse with people," "Travel to China," "Getting a good job," and "Chinese language is important in world economy." These results indicated both EC and NC-background students were motivated by the same set of factors to learn Chinese (see Table 7).

Table 7. Overall Response Frequencies to Items 1-12 (All Participants)

| Item # | Motivational Factor | Mean | Median | Mode | SD | n (valid) | n (missing) |
|--------|-------------------------------|------|--------|------|-------|-----------|-------------|
| 1 | Appreciate Chinese literature | 4.43 | 5.0 | 5 | 1.607 | 216 | 1 |
| 2 | Converse with people | 5.40 | 6.0 | 7 | 1.512 | 217 | 0 |
| 3 | Learn Chinese culture | 4.84 | 5.0 | 6 | 1.49 | 216 | 1 |
| 4 | My own heritage | 4.78 | 5.0 | 7 | 2.131 | 180 | 37 |
| 5 | Important in world economy | 5.64 | 6.0 | 7 | 1.457 | 185 | 32 |
| 6 | Understand Chinese speakers | 3.51 | 3.5 | 4 | 1.632 | 190 | 27 |
| 7 | Getting a good job | 5.58 | 6.0 | 7 | 1.498 | 194 | 23 |
| 8 | Use it with Chinese friends | 4.70 | 5.0 | 7 | 1.897 | 194 | 23 |
| 9 | Travel to China | 5.78 | 6.0 | 7 | 1.391 | 195 | 22 |
| 10 | Graduation requirement | 4.50 | 5.0 | 7 | 2.064 | 195 | 22 |
| 11 | Class less demanding | 2.79 | 2.0 | 1 | 2.058 | 195 | 22 |
| 12 | Study abroad | 3.11 | 3.0 | 1 | 1.892 | 195 | 22 |

Note. Min. = 1; Max. = 7. n = number of student participants.

For the convenience of data analysis, the data were regrouped as follows. First, frequencies were used to determine the percentage of students agreeing/disagreeing with each of the 12 items on Part II of the survey. A response of 5 or above was considered as Agree, a response of 4 was considered as Neutral and a response 3 or below was considered as Disagree. The researcher reported the overall frequency counts of all participants as one group first and later presented the percentage of EC-background students agreeing with each of the 12 items as one group and NC students agreeing with these items as another group. Table 8 summarizes both EC and NC-background students' responses to items 1 to 12 under the category of agree percentage.

Table 8. Positive Response Percentage (EC vs. NC Participants)

| Item | Start: I'm taking Chinese because | EC Agree % | NC Agree % |
|------|-----------------------------------|------------|------------|
| 2 | converse with people | 75 | 78 |
| 9 | Travel to China | 75 | 82 |
| 4 | My own heritage | 74 | 25 |
| 7 | Getting a good job | 66 | 79 |
| 5 | Important in world economy | 63 | 77 |
| 8 | Use it with Chinese friends | 57 | 51 |
| 1 | Appreciate Chinese literature | 56 | 48 |
| 3 | Learn Chinese culture | 53 | 65 |
| 10 | Graduation requirement | 50 | 42 |
| 11 | Class less demanding | 29 | 9 |
| 6 | Understand Chinese speakers | 26 | 21 |
| 12 | Study abroad | 23 | 19 |

Note. Positive responses (Agree) = Likert-scale responses 5, 6, 7.

n = 122 (ethnic Chinese); n = 95 (non-Chinese).

EC = Ethnic-Chinese group; NC = Non-Chinese group.

In general, the items that received the most positive responses from both EC and NC-background students' were the same, and they received similar scores. These results indicate that both EC and NC-background students were motivated to learn Chinese by a similar set of factors.

The scores of these two groups vary most in item 4, "My own heritage" (74% and 25%), which indicates that most EC-background students were also largely motivated by the factors

of their own heritage. As item 4 “My own heritage” is not applicable to NC-background students, the large score variance on this item between EC and NC groups is not considered in this study.

NC group displays higher instrumental motivation. Instrumental motivation refers to being motivated by the practical benefits of learning a language. Two other survey results are worthy of comment. First, NC-background students responded significantly more positively in all four most frequently “Agree” items than their EC peers. Among these four items, 13% more NC-background students reported the two items “China important in world economy” and “Getting a good job” as motivational factors for studying Chinese than their EC participants. This suggested that NC-background students display a higher instrumental motivation level than their EC counterparts.

Similar motivational factors: advanced and intermediate students. When the responses of advanced and intermediate level students were compared, both groups’ four highest ranked motivators were the same, as were the three lowest ranked motivators. This finding indicates that there is no significant difference in the motivational factors by Chinese class levels, which addressed sub-question (b) of RQ1: “Is there a difference in the motivational factors by Chinese class levels?”

Overall, both advanced and intermediate level students were most motivated to learn Chinese by the prospect of getting good jobs due to China’s importance in the world economy while least motivated by the perception that the Chinese language course would make few demands on them (see Table 9).

Table 9. Positive Response Percentage by Chinese Levels

| Item | I am taking Chinese because | Level 2 - 3 | Level 4 - AP |
|------|-------------------------------|-------------|--------------|
| 1 | Appreciate Chinese literature | 57 % | 48 % |
| 2 | Converse with people | 79 % | 34 % |
| 3 | Learn Chinese culture * | 59 % | 58 % |
| 4 | My own heritage | 61 % | 45 % |
| 5 | Important in world economy * | 76 % | 63 % |
| 6 | Understand Chinese speakers | 20 % | 27 % |
| 7 | Getting a good job * | 75 % | 69 % |
| 8 | Use it with Chinese friends | 56 % | 52 % |
| 9 | Travel to China * | 85 % | 72 % |
| 10 | Graduation requirement | 49 % | 45 % |
| 11 | Class less demanding | 28 % | 13 % |
| 12 | Study abroad | 21 % | 21 % |

Note. Positive responses = Likert-scale responses 5, 6, 7. $n = 217$.

* Most important motivator.

Results of the independent *t* tests. Independent *t* tests were conducted to compare EC-background students' three motivational factors for learning Chinese with those of NC-background students to address RQ1 and its sub-question (a).

The results of the independent *t* tests indicated a significant difference in the scores for instrumental motivation, measured by items 7 to 12 on the survey, between the EC-background students ($M = 27.63, SD = 5.78$) and their NC peers ($M = 25.14, SD = 5.29$): $t(194) = 3.115, p = 0.002$. *M* is the mean score and *SD* refers to the standard deviation in the *t* test. These results suggest that ethnic backgrounds do have an effect on students' instrumental motivation, which is powered by the perceived practical benefits of learning Chinese.

The results of the *t* tests matched the findings from the frequency analysis. A close look at the frequency analysis shows that NC group scored 14% higher in item 5, "China important in world economy" and 13% higher in item 7, "Getting a good job" than the EC group. These findings indicate that EC and NC-background students differed in the intensity of their instrumental motivation to study Chinese (see Tables 10 and 11).

Table 10. *M and SD of the Motivational Factors: EC vs. NC Groups*

| Motivational Factors | <i>M</i> (EC) | <i>M</i> (NC) | <i>SD</i> (EC) | <i>SD</i> (NC) |
|----------------------|------------------|------------------|-------------------|-------------------|
| Integrative | 29.3111 | 27.3214 | 6.41740 | 6.20002 |
| Instrumental | 27.6311 | 25.1429 | 5.77518 | 5.28850 |
| Efforts | 15.6529 | 15.8925 | 2.94027 | 2.96157 |

Note. EC = Ethnic-Chinese group. NC = Non-Chinese group.

Table 11. *T Test Results: EC vs. NC Groups*

| Motivational Factors | <i>t</i> | <i>p</i> | Equal Variance | (EC) <i>n</i> | (NC) <i>n</i> |
|----------------------|----------|----------|----------------|---------------|---------------|
| Integrative | 1.845 | .067 | Yes | 90 | 56 |
| Instrumental | 3.115 | .002 * | Yes | 103 | 91 |
| Efforts | -.589 | .556 | Yes | 121 | 93 |

Note. EC = Ethnic-Chinese group. NC = Non-Chinese group.

* There is a significant difference between the two groups at the level $p < .01$.

Correlations between expectancy and motivational factors. A Pearson product-moment correlation coefficient was computed to assess the relationship between the three motivational factors and expectancy for EC-background students and their NC counterparts respectively. Expectancy measures students' expected probability of being successful in learning. Expectancy-value theories state that if people perceive they have a

good chance or high probability of being successful in learning or completing a task, they are most likely to be motivated (Wen, 1997). In other words, the higher the expected probability of success, the stronger the motivation will be.

Findings on EC students: positive correlation between all three motivational factors and expectancy. The results revealed a positive correlation between all three motivational factors and expectancy among EC-background students.

Integrative motivation and expectancy: ($r = 0.342, n = 90, p = 0.001$).

Instrumental motivation and expectancy: ($r = 0.420, n = 102, p < 0.001$).

Perceived efforts and expectancy: ($r = 0.482, n = 120, p < 0.001$).

Findings on NC students: no correlation between instrumental motivation and expectancy. For NC-background students, the results suggested a positive correlation between motivational factor one (integrative) and expectancy, and a positive correlation between motivational factor three (efforts) and expectancy.

Integrative motivation and expectancy: ($r = 0.608, n = 56, p < 0.001$).

Perceived efforts and expectancy: ($r = 0.551, n = 93, p < 0.001$).

However, no correlation was found between NC-background students' instrumental motivation and expectancy. This result suggests that the NC group's motivation to learn Chinese based on the perceived benefits from learning this language has no relation to their expectations of being successful or not in learning the language. In other words, NC-background students would choose to learn Chinese because they perceive the value associated with learning this language even though they may not expect to succeed in

learning it. Therefore, expectancy or the expected probability to be successful in learning has no relation to NC-background students' instrumental motivation.

In this case, valency or the perceived value of learning a language seems to outweigh expectancy, which is the expectation of being successful or not. These two factors do not seem to occupy an equal position in a learner's mind.

Table 12. *Correlations between Motivational Factors and Expectancy: EC vs. NC Groups*

| Motivational Factors | Expectancy | |
|----------------------|----------------|-------------|
| | Ethnic Chinese | Non-Chinese |
| Integrative | .342** | .608** |
| Instrumental | .420** | .164 |
| Efforts | .482** | .551** |

Note. ** $p < .01$ Correlation is significant at the .01 level (2-tailed).

Motivation to persist in learning Chinese. A multiple regression analysis was conducted to address RQ2: “Which factors sustain students’ learning interest and help them persist in learning Chinese beyond meeting the high school graduation requirement?” This analysis was conducted to determine which factors, among the three motivational factors (integrative, instrumental and efforts) and students’ ethnic backgrounds significantly impact students’ continuing interest in learning Chinese. In this case, students’ years of continuing in Chinese programs indicates how well they are able to sustain their interest or motivation in learning. The following independent variables or predictors were entered: three motivational

factors (integrative, instrumental, and effort) and students' ethnic backgrounds. Students' years of continuing in Chinese programs, an indicator of sustained motivation or interest in learning Chinese, was designated as the dependent variable.

Using the enter method, a significant model emerged. $F(5, 137) = 2.870, p < .05, r^2 = .095$. Significant variables are shown below.

| Predictor Variable | Beta | p |
|---------------------------|-------------|-----------|
| NC-background | .224 | $p < .05$ |
| Expected efforts | -.250 | $p < .05$ |

(Integrative and instrumental motivations were not significant predictors in this model.)

The two prediction equations are as follows:

$$\text{Years of continuing in Chinese programs} = 1.079 (\text{non-Chinese background}) + 7.240$$

$$\text{Years of continuing in Chinese programs} = -.200 (\text{expected efforts}) + 7.240$$

The results indicated that students' ethnic background significantly impacted their continuing learning interest or years continuing in the Chinese program. NC-background ($Beta = 0.224, p = 0.009$) was a significant positive predictor of students' years continuing in Chinese programs, whereas students' efforts ($Beta = -0.250, p = 0.006$) was a significant negative predictor of years continuing in Chinese programs. Integrative and instrumental motivations were not significant predictors. Controlling for other factors, an NC-background student continues 1.079 years longer in Chinese programs than an EC student. Overall, the results suggest that NC students would continue significantly longer in Chinese programs or most likely sustain their learning interest longer than EC-background students.

Meanwhile, the third motivational factor (expected effort) was a significant negative predictor of years continuing in Chinese programs. Controlling for other factors, expected effort is negatively related to the time needed to complete the program. This means that if students were willing to expend more effort, their stay in Chinese programs would be shorter. This is because students would be able to complete the programs faster. For example, if a high school student performed extremely well by exerting more effort, this student would be able to skip a level and reach the highest level faster. On the other hand, if a student failed the course due to insufficient effort, this student would need to repeat the level, thus extending the years enrolled in the program.

Overall, the results predicted that NC-background students would continue significantly longer in Chinese programs than their EC counterparts when other factors were being controlled. This means that if both the EC and NC groups maintained the same amount of the three motivational factors (integrative, instrumental and effort), NC students would sustain their interest in learning Chinese longer than their EC counterparts. Table 13 below reports the results.

Table 13. *Regression: Factors Impacting the Sustainability of Motivations*

| Predictors | R^2 | <i>Beta</i> | <i>t</i> | Sig. |
|----------------------------|-------|-------------|----------|--------|
| Integrative motivation | 0.095 | 0.106 | 1.104 | 0.271 |
| Instrumental motivation | 0.095 | - 0.002 | - 0.028 | 0.978 |
| Perceived efforts | 0.095 | - 0.250 | - 2.793 | 0.006* |
| Non-Chinese background | 0.095 | 0.224 | 2.643 | 0.009* |

Note. * $p < 0.01$

In addition to the three motivation factors and student participants' ethnic backgrounds, participants' gender was also entered to determine whether gender significantly impacted students' years continuing in the Chinese program or not. The results indicated that there were no significant differences between male and female groups in their years continuing in the Chinese programs. As gender issue is not pertaining to the research questions in the present study, there was no reason to further analyze this factor.

Summary of Quantitative Investigation Findings

The quantitative portion of the present study included survey response frequency analysis,

t tests, correlations, and multiple regression analysis. Frequency analysis was used to identify the motivational factors that influence U.S. high school students to choose to learn Chinese and examine possible differences in the motivations between EC and NC-background students. *T* tests were applied to further investigate the differences in motivational factors between the EC and NC groups. Correlations analysis was used to examine the relationships between the three motivational factors and students' expected probability of succeeding in learning. Multiple regression analysis was conducted to discover the factors that significantly impacted the sustainability of students' motivation for learning Chinese.

Following are the major findings from the quantitative investigation.

The survey response frequency analysis indicated that students' ethnic backgrounds or Chinese proficiency levels produce no difference in the factors that influence language choice because both EC and NC groups as well as both intermediate and advanced students reported a similar set of motivators to choose to learn Chinese. However, the NC group reported a more positive instrumental motivation, which is powered by the benefits of learning the target language. Students were generally motivated to learn Chinese by the career prospects connected to China's rising status in the global economy.

The results of the *t* tests also indicated that the EC group differed significantly from the NC group in their instrumental motivation. Correlation tests found a positive correlation between all three motivational factors and expectancy or expected probability of succeeding in learning for EC students. However, no correlation was found between instrumental motivation and expectancy for the NC group. This means that even if NC students perceived

that their probability of being successful in learning Chinese was low, they would still be motivated to learn Chinese for its practical benefits. Their instrumental motivation had no relationship to the expected probability of success in learning.

Multiple regression analysis found that the NC group would sustain their interest in learning Chinese beyond that of their EC counterparts and continue significantly longer in Chinese language programs.

Qualitative Investigation Results

The overwhelming majority of studies on motivation studies and particularly on second language (L2) motivation studies are quantitative. There are few qualitative studies and even fewer qualitative studies investigating both student and teacher perceptions. The paucity of qualitative studies on motivation research has inevitable limitations in terms of exploring deeper insights, especially from the teachers' and students' perspectives. The present study included open-ended questions in the student survey to allow participants to explain their answers more fully. In addition, focus groups and individual teacher interviews were used in this study to provide an opportunity for the researcher to gain a deeper understanding of motivators and de-motivators for language learning that emerged from the analysis of the initial student survey. The qualitative components of this study are designed to begin to fill a gap.

Results of open-ended questions. To capture a three-dimensional picture of students' motivations to learn Chinese and the factors sustaining their learning interest, two

open-ended questions were added to the survey as follows:

1. If you could choose again, would you still want to choose to study Chinese? Why or why not?
2. What is the most important factor that keeps your interest in learning Chinese?

Results of open-ended question 1: reasons to choose or not choose to study Chinese

again. The results of the open-ended question 1 were as follows. Two hundred and sixteen responses were collected. Of the 216 students who answered the first open-ended survey question, 88% responded “Yes” while 12% responded “No.” This indicates that the majority of the participants would, in retrospect, still choose to study Chinese to meet their high school graduation requirements for world language study.

Why would the students want to choose to study Chinese again? Thirteen themes or reasons were identified from 190 “yes” responses as follows.

Table 14 summarizes and ranks students’ reasons to choose to study Chinese again. A student participant may report multiple reasons to study Chinese again.

Table 14. *Reasons to Study Chinese Again (Overall)*

| Item | Reasons to Study Chinese Again | Frequency |
|------|--------------------------------|-----------|
| 1 | Heritage | 60 |
| 2 | Career, China's economy | 60 |
| 3 | Interesting, unique | 48 |
| 4 | Challenging | 27 |
| 5 | Passion to learn Chinese | 21 |
| 6 | Easy class | 15 |
| 7 | Interested in culture | 8 |
| 8 | Teacher engaging | 7 |
| 9 | Good experience | 5 |
| 10 | Only option | 5 |
| 11 | Study abroad, college | 4 |
| 12 | Friends | 2 |
| 13 | Parents' interest | 1 |

For the 12% of the respondents who reported they would not choose to study Chinese if they could choose again, they reported seven reasons on why they would not choose to study Chinese again (see Table 15).

Table 15. *Reasons not to Study Chinese Again*

| Reasons | | Frequency |
|---------|----------------------------|-----------|
| 1 | Too hard | 11 |
| 2 | Already know Chinese | 8 |
| 3 | Other language appealing | 7 |
| 4 | Other language more useful | 3 |
| 5 | Could learn from parents | 1 |
| 6 | Did not put enough effort | 1 |
| 7 | Pushed by parents | 1 |

To further address RQ1 and to examine whether students' ethnic backgrounds and Chinese levels play any role in impacting their decision to choose to study Chinese, this study compared the reasons to choose to study Chinese reported by EC and NC groups and by advanced and intermediate students. The results indicated students' ethnic backgrounds and Chinese levels have no impact on their decision to choose to study Chinese again because both EC and NC groups and both advanced and intermediate students reported the same five most important reasons to choose to study Chinese again. Moreover, both EC and NC groups and both advanced and intermediate students reported "Future career and China's economy" as their most important or second most important reason to choose to study the Chinese language (see Tables 16 and 17). In this study, intermediate level refers to Chinese levels 2 and 3, while advanced level includes Chinese levels 4, 5, and AP.

Table 16. *EC vs. NC Groups: Reasons to Study Chinese Again*

| Item | Percent (EC) | Percent (NC) |
|------------------------------------|--------------|--------------|
| 1 Heritage * | 31% | 11% |
| 2 Future career, China's economy * | 19% | 30% |
| 3 Interesting, unique * | 17% | 22% |
| 4 Passion to learn Chinese * | 9% | 7% |
| 5 Easy class | 9% | 2% |
| 6 Challenging * | 4% | 15% |
| 7 Interested in culture | 3% | 4% |
| 8 Good experience | 2% | 2% |
| 9 Teacher engaging | 2% | 4% |
| 10 Only option | 2% | 1% |
| 11 Study abroad, college | 2% | 2% |
| 12 Friends | 1% | 1% |
| 13 Parents' urge | 1% | 0% |

Note. *Most frequently reported.

EC = Ethnic-Chinese group. NC = Non-Chinese group.

Table 17. *Intermediate vs. Advanced Levels: Reasons to Study Chinese Again*

| Item | Intermediate | Advanced |
|------------------------------|--------------|----------|
| 1 Interesting, unique * | 23% | 16% |
| 2 Career, China's economy * | 22% | 25% |
| 3 Heritage * | 16% | 27% |
| 4 Passion to learn Chinese * | 12% | 7% |
| 5 Challenging * | 9% | 8% |
| 6 Easy class | 4% | 7% |
| 7 Interested in culture | 4% | 3% |
| 8 Teacher engaging | 3% | 3% |
| 9 Only option | 3% | 1% |
| 10 Parents' urge | 2% | 0% |
| 11 Good experience | 1% | 3% |
| 12 Study abroad, college | 0% | 2% |
| 13 Friends | 0% | 1% |

Note. *Most frequently reported.

Intermediate Level = Chinese levels 2 and 3.

Advanced Level = Chinese levels 4, 5 and AP.

Challenge of learning Chinese motivated students. A common theme that emerged from the qualitative investigations is that the challenging aspect of learning the Chinese language served as an important factor for students to choose to study Chinese and to sustain their motivation. Students' responses to two open-ended questions as well as student focus group and teacher interviews in the present study all provided insights about this phenomenon.

In their responses to the first open-ended question, both EC and NC groups reported the

interesting and challenging aspect of the Chinese language as one of their most important reasons to choose to study Chinese again. The NC group's ranking of these two factors was higher than the EC group.

Twenty-seven students reported in their responses to open-ended question 1 that the challenging and interesting aspect of the Chinese language motivated them to choose to study Chinese. An Indian student stated, "Yes, I would definitely choose Chinese again because it is a very difficult language (harder than Spanish, French, and German) and I want to learn it." Another student claimed, "Chinese is very challenging, but it's rewarding to learn."

Summary of findings: open-ended question 1. Several findings emerged from students' reported reasons to choose or not to choose to learn Chinese again. First, the majority of the participants would still study Chinese if they were to choose again. Second, students' ethnic backgrounds and Chinese class levels have no impact on their motivational factors to choose to learn Chinese. Third, both NC and EC groups and both advanced and intermediate level groups reported "Future career and China's economy" as their most important or second most important reason to choose to study the Chinese language. Fourth, the challenging and interesting aspect of the Chinese language motivated students to choose to study it.

Results of open-ended question 2: factors sustaining interest in learning Chinese.

Open-ended question 2 was designed to provide students with an opportunity to explain their perceived motivational factors and to address RQ2. Students were invited to respond to open-ended question 2 in a survey: "What is the most important factor that keeps your interest in learning Chinese?"

Fifteen factors that sustain students' interest in learning Chinese were identified from the students' responses using the approach of first looking for themes (factors) in the responses and then coding and categorizing the themes to yield a frequency count. Table 18 reports the results.

Table 18. *Factors Sustaining Interest in Learning Chinese (Overall Responses)*

| Item # | Factors Sustaining Interest | Response % |
|--------|----------------------------------|------------|
| 1 | Jobs, study abroad * | 21% |
| 2 | Language & culture interesting * | 19% |
| 3 | Heritage * | 18% |
| 4 | Love Chinese * | 11% |
| 5 | Engaging teacher* | 8% |
| 6 | Connect with friends | 5% |
| 7 | Parents' urge | 4% |
| 8 | Enjoy challenge | 4% |
| 9 | Unique for non-Asian students | 3% |
| 10 | Easy A | 2% |
| 11 | Good for college | 1% |
| 12 | Grammar, vocabulary | 1% |
| 13 | Have earned good grades | 1% |
| 14 | Learn character | 1% |
| 15 | Grad. Requirement | 1% |

Note. *Most frequently reported factors.

The prospect of future jobs was reported as the most important factor in sustaining students' interest in learning Chinese. Students reported, "My future is heavily based on my Chinese. I want to work in China and therefore, need a strong grasp of the Chinese

language”; “Most of my friends speak Chinese with their families and I find that very interesting. Also, Chinese can be useful in getting a good job”; “China's growing economy is the most important factor that keeps my interest in learning Chinese.”

Students indicated that the unique aspect of Chinese language and culture was the second important factor that sustained their interest in learning Chinese. They stated, “The amount of fun I have from learning the language and the thought of using it in my future in order to succeed in a career keeps my interest in learning”; “I think it's an interesting and challenging language. Since I plan on learning multiple languages in the future, I think that Chinese would be a good language to start with because it's so different from Western languages.”

The third important factor that sustained their interest in learning Chinese is heritage. One student explained, “It is my native language and I want to keep on developing it. For my own Oriental heritage, I would never want to forget this language and its history and culture.” Another student reported, “The fact that I am able to speak to other Chinese speakers and be proud of the fact that I can speak the language of my heritage keeps my interest in learning Chinese.”

EC and NC groups and Chinese levels: same factors sustaining motivation. The results of open-ended question 2 indicate that both EC and NC-background students as well as both intermediate and advanced Chinese-level students reported the same set of most important factors that sustained their interest in learning Chinese (see Tables 19 and 20).

Table 19. Factors Sustaining Interest in Learning Chinese: EC vs. NC Students

| Item # | Factors Sustaining Interest | % (EC) | % (NC) |
|--------|--------------------------------|--------|--------|
| 1 | Heritage * | 24% | 10% |
| 2 | Jobs, study abroad * | 22% | 21% |
| 3 | Language & culture interesting | 18% | 21% |
| 4 | Love Chinese * | 10% | 11% |
| 5 | Engaging teacher * | 6% | 11% |
| 6 | Parents' interest | 4% | 3% |
| 7 | Grad. Requirement | 1% | 0% |
| 8 | Easy A | 3% | 0% |
| 9 | Connect with friends | 3% | 6% |
| 10 | Enjoy challenge | 3% | 4% |
| 11 | Grammar, vocabulary | 0% | 3% |
| 12 | Good for college | 2% | 1% |
| 13 | Unique for non-Asian students | 1% | 6% |
| 14 | Have earned good grades | 1% | 2% |
| 15 | Learn Chinese characters | 1% | 2% |

Note. * Most frequently reported factors.

EC = Ethnic-Chinese students.

NC = Non-Chinese students.

Table 20. *Factors Sustaining Interest in Learning Chinese: Intermediate vs. Advanced Levels*

| Item # | Factors Sustaining Interest | % Intermediate | % Advanced |
|--------|-----------------------------|----------------|------------|
| 1 | Language & culture* | 22% | 18% |
| 2 | Jobs, study abroad* | 18% | 25% |
| 3 | Love Chinese* | 14% | 9% |
| 4 | Heritage* | 9% | 19% |
| 5 | Engaging teacher* | 9% | 8% |
| 6 | Enjoy challenge | 7% | 1% |
| 7 | Connect with friends | 6% | 3% |
| 8 | Parents' urge | 4% | 4% |
| 9 | Unique for non-Asians | 2% | 3% |
| 10 | Learn Chinese characters | 2% | 2% |
| 11 | Easy A | 2% | 3% |
| 12 | Goof grades | 2% | 0% |
| 13 | Grammar, vocabulary | 1% | 2% |
| 14 | Grad. Requirement | 1% | 1% |
| 15 | Good for college | 0% | 2% |

Note. Intermediate Level = Chinese levels 2, 3.

Advanced Level = Chinese levels 4, 5, AP.

* Most frequently reported factors.

Students reported that learning Chinese makes NC-background students feel proud. The sense of pride and accomplishment gained from learning Chinese plays an important role in sustaining NC-background students' motivation and learning interest.

Four NC students reported their response as follows: "I want to further my involvement in Chinese culture, and Chinese also makes me stand out from the crowd of the average

Caucasian students”; “It looks very good for a Caucasian person to be able to speak Chinese”; “I enjoy the challenge that comes with the language although learning Chinese takes more hours than learning European languages. I also enjoy people’s reactions when you tell them you take Chinese as a Caucasian. They don’t expect it”; “The most important factor that keeps my interest in learning Chinese is the fact that I am not a native Asian and it seems unique for a white-Hispanic to be able to go to the Chinese market and surprise people when I join their conversations.”

Inherent beauty of Chinese characters sustains students’ motivation. Although clearly not a major theme, three NC-background students and one EC student reported that the inherent beauty of Chinese characters is the most important factor in maintaining their interest in learning Chinese. Their comments were, “I really love learning how to write Chinese characters because it looks pretty”; “Reading and writing Chinese characters have an inherent beauty that gives a feeling of satisfaction that outweighs the initial frustration”; “Writing characters in Chinese is also a very satisfying and difficult challenge. Every time, I finish writing a composition or remember a difficult character, I feel very accomplished. The challenge that Chinese class provides through its tough oral and written language is very rewarding.”

NC-background students’ intrinsic motivation. While for EC students meeting the high school graduation requirement was their #7 factor in sustaining their interest in learning Chinese, none of the NC-background students reported that meeting the graduation

requirement was a factor. In this case, the nature of the motivation exhibited by NC-background students was fundamentally different from that of those EC-background students who chose to learn Chinese merely for the purpose of fulfilling the high school graduation requirements.

The patterns, themes, and findings that emerged in the survey investigation were verified and triangulated through student focus group and individual teacher interviews in the Phase 2 stage of the study.

Summary of findings for open-ended question 2. Several findings emerged from the important factors reported by the students regarding their sustained interest in learning Chinese. First, students mentioned that career prospects connected to China's rising status in the global economy was the most important factor. Chinese culture and heritage were the second and third most important factors. Second, both EC and NC students and students at various Chinese proficiency levels reported a similar set of factors that sustained their motivations for learning Chinese. Third, the sense of pride which came from learning Chinese played an important role in sustaining NC-background students' motivation. Last, none of the NC-background students reported meeting the graduation requirement as a factor in maintaining their motivation for learning Chinese.

Results of student focus group interviews. To further address RQ1 and RQ2 and to explore themes and understand patterns that emerged from the survey, two student focus group interviews were conducted after school with the consent of the student participants and their parents. An interview guide was developed based on the themes that emerged from the

survey. For details of the focus group interview guide, please see Appendix B. The composition of the focus groups is shown in Table 21.

Table 21. *Focus Group Participants' Information*

| Student background | School 1 | School 2 | Total | Percentage |
|--------------------|----------|----------|-------|------------|
| Ethnic Chinese | 8 | 8 | 16 | 55% |
| Non-Chinese | 7 | 6 | 13 | 45% |
| Male | 7 | 8 | 15 | 52% |
| Female | 8 | 6 | 14 | 48% |
| Chinese Level | | | | |
| II | 0 | 5 | 5 | 17% |
| III | 4 | | 4 | 14% |
| IV | 5 | 4 | 9 | 31% |
| V | 3 | | 3 | 10% |
| AP | 3 | 5 | 8 | 28% |
| Total participants | 15 | 14 | 29 | 100% |

The results of the student focus group interviews were reported in the following format: results addressing RQ1, and results addressing RQ2.

Results addressing RQ1: What motivates students to choose to learn Chinese? Students in the focus groups noted the following factors that made learning Chinese most appealing to them and motivated them to learn Chinese:

1. challenging and unique aspect of the Chinese language,

2. interesting aspect of the Chinese culture,
3. China's economy,
4. teachers' engaging teaching style.

Students reported that the challenging and unique aspect of the Chinese language motivated them to learn Chinese. A student stated, "The thing that makes students interested is that they want the challenging stuff." Student F explained:

I found Chinese interesting because it is challenging. There are not many challenges in life, but learning Chinese is really challenging.... In English, there are only 26 letters, but in Chinese there are thousands [of characters]. You have to train your brain to learn these things along with the pronunciations. I think it is really interesting that way.

Students also reported that the interesting aspect of Chinese culture motivated students. A student noted, "It is the culture that Chinese brings to us that makes people want this challenge." Another student stated, "I think one of the reasons that people continue to learn Chinese after meeting the high school graduation requirements is that they learn not just to meet the requirements but they are really interested in the culture and the challenges." A focus group participant noted, "As for interesting aspects of Chinese.... I think the other reason is the culture itself, like the Great Wall of China, and I have to agree that it is pretty fascinating."

Global language status increases students' motivation. The focus group interviews suggested that the world language status of Chinese language increased motivation.

Students reported that China's rising economy motivated them to learn Chinese. The

following interview results illustrated this finding. Student C stated:

I think the global status of the Chinese language increased students' motivation because when you see China's past glorious history and current fast-paced modernization, it is the desire that makes people want to go there. When you see the tallest buildings in Shanghai and the culture, you want to go there and do something exciting and travel. That's why we have the motivation to learn well, to go there and to speak the language.

Student A also noted that China's rising economy motivated students to learn Chinese.

She explained:

Chinese is an interesting language to learn because China is becoming the second largest economy in the world. A lot of people go to Chinese cities. Even if you do not go to mainland China, you go to Hong Kong, Macau, Taiwan, Singapore, and Malaysia. There are a lot of jobs there. It provides me extra opportunity to find the job.

Results addressing RQ2: What sustains interest in learning Chinese? Students in the focus group suggested the following reasons why students continued learning Chinese beyond meeting the graduation requirements:

- (a) Students do not just have a goal of meeting graduation requirements. They are interested in the culture and challenges.
- (b) Students want to become truly fluent in Chinese in order to be able to use it in their future careers.
- (c) Students believe they will have better college admissions prospects and careers.

The six themes that emerged from the discussion among the students about what sustains their motivation to learn Chinese are:

- (a) the prospect of applying Chinese in real life and their future careers,
- (b) passion for learning Chinese language, culture, and history and maintaining their heritage,
- (c) engaging faculty teaching style,
- (d) parents' interest,
- (e) peer support and friendship,
- (f) challenge, sense of success, and competence.

These six themes confirmed the factors that sustained students' interest in learning Chinese reported in the survey. All of the six themes were reported in the responses to the open-ended questions in the survey as the most important factors that sustained students' motivation. Examples of student comments illustrating each of these themes follow.

The focus group discussions suggested that the prospect of applying Chinese in real life and future careers is one of the most important factors to motivate them and sustain their motivation. Student B stated:

The reason students continue to learn Chinese after meeting the high school world language graduation requirements is they want to learn more and expand the[ir] horizons.

As China is influencing the world increasingly, people are interested in learning how it

developed so rapidly.

Student D noted:

I think learning a language is enjoyable because it is something you can apply and have the ability to apply it. It allows you to use multiple perspectives on things because it allows you to understand culture better and it allows you to go to different areas. It almost unlocks new experiences for you. If I became a master of Chinese, I could go to China, and I could speak with people. I could understand the culture behind it, and I can learn that as well. It opens up new doorways for you....You can apply Chinese in your career or just speaking with someone or working in a company in China.

Student F explained:

I think students continue to learn Chinese after meeting the high school graduation requirements for various reasons. I know some Chinese and non-Chinese background students have parents that let them take Chinese so that they could be better off in the future since China is such a booming country with a lot of resources. Also that some students go to college visits and the admission office says they prefer students with four-year foreign language experience rather than just two. So that is another strong reason why people continue.

Students reported that Chinese language, culture, and history are very interesting to them and they help sustain their interest in the subject. EC students' desire to maintain their heritage also sustains their motivation. Student L noted:

To maintain one's interest, I think it is because of the reward it pays off at the end. As you learn, you can experience a totally different culture from yours and even from European cultures. Chinese culture is about 5, 000 years old, something like that. So its history is very interesting and it provides some motivations.

Student K explained,

I grew up in a Chinese-speaking household so I speak "Chinglish" at home. I was in a Chinese kindergarten, but I have never learned Chinese history or culture before. I thought it was kind of cool to learn Chinese history because it is like 2,000 years something, much more than the United States history at least.

Student S stated, "I love Chinese language since it is really intriguing to me. I would stick to it no matter how hard or how easy it is. I just want to keep taking Chinese in high school and in college. I try to keep it up."

EC students reported that their heritage is an important factor that motivated them and sustained their motivation to learn Chinese. Student C commented, "If you are interacting with your family and other people, you might want to be able to speak Chinese as it is a big part of your life overall." Student I stated, "For me, I am very bad at Chinese; so it kind of motivates me because I want to talk with my relatives in China and understand Chinese in speaking and reading."

One student responded that their teachers' engaging teaching style is an important factor in sustaining students' interest. He stated, "It depends on how interesting the teacher makes

the class that she teaches, and it depends on how the teacher involves the students.”

Parents play an important role in helping students maintain their interest. A number of students reported that they were urged by their parents to learn Chinese and were glad that they followed their parents’ advice. Student P stated:

When I moved here, I wanted to take French because I thought that was interesting. But my parents convinced me to take Chinese. They said, “ You are a Chinese, but you do not know how to speak Chinese.” I speak Cantonese, but I was scared about Mandarin. I enjoy learning Chinese, and I am glad they convinced me to take Chinese now.

Student I said, “I am half Spanish and half Caucasian. ... And to be honest, I do not think my mom would be too happy about me quitting Chinese. I just think it’s very bad to quit a language like that.”

Social needs and peer support also play an important role in sustaining students’ learning interest in Chinese.

Student O stated:

I think what maintains their interest in learning is building relationship with their peers. Because in Chinese classes, like in other classes, you become really good friends with everybody in Chinese because it is like a little section of Chinese-speaking people. You have something in common with these close friends.

Students agreed that the sense of success and competence which comes from the

challenge of learning Chinese is vital to sustaining their motivation. Student E stated, “As for what keeps me interested? I think if I notice that I am improving, it motivates me to work harder.”

Why do students enjoy the challenge of learning Chinese? The focus group participants explored the theme of enjoying the challenge of learning the Chinese language that was noted by some students in the survey responses. They offered the following suggestions to explain this. Student B stated:

I think the challenge of Chinese is appealing to a lot of students because even [if] it is a harder language, the challenge keeps you interested in it because I know a lot of my friends who take other languages. Even if they get an A in that class, they think it is a boring class because they think it is too easy. So I think the challenge keeps you interested.

In summary, students in the focus groups offered the following primary reasons why they enjoy the challenge of learning Chinese.

- (a) the uniqueness of Chinese culture and language,
- (b) the passion for learning the language, and
- (c) the challenging aspect of learning Chinese.

The uniqueness of Chinese culture and language makes students enjoy the challenge.

The focus group participants noted the uniqueness of the Chinese culture and language and how this contributed to the challenge and enjoyment of learning the language. Student A

stated:

There are some forces from parents, but not me, I just know it. Chinese is three times harder than other languages, the structure and the tones. It is the culture that Chinese brings to us that makes people want this challenge because it is the most interesting language.

Another student noted:

Also the fact that Chinese is not similar to English in any way makes it difficult but also keeps you interested in the class, I think. You stick with it since it is more foreign to you than other languages similar to English.

Student A explained why Chinese classes may be more interesting or motivating to NC-background students: “Chinese class here is more motivating for non-Chinese background people because they never get in touch with Chinese before. It is something really new for them to learn.”

Passion to learn overcomes the challenge. Student C stated that passion can overcome the challenge associated with learning:

It is not a challenge if you have a passion for the subject. If you are struggling in science and you really do not want to take science, it is probably a signal that it is not one of your passions and you are not going to be interested in it. So I think the reason why I like Chinese is because I want it.

Student H noted, “A lot of non-Chinese people indulge in learning about different types of Asian culture Chinese is like a window into the whole culture they enjoy.”

Student F noted, “Personally, I expect to continue Chinese into college. I do not think I am going to use it in the future since I am not going into business or anything like that. I just find the language significantly interesting.”

Challenge of learning Chinese motivates students and sustains motivation. During the focus group discussions, students indicated that the challenging aspect of learning Chinese is one of the most appealing aspects of learning this language and helps sustain their motivations. Student A commented, “I think Chinese is the hardest language, and it is the challenge that motivates people.” Student B stated:

Chinese is like challenging, but you can still be successful in this class. So it is interesting, at least for the kids in my class, that we are not worried about the grades. If you are interested in Chinese and you pay attention to learning it, then your grades would be good and you don’t have to worry about it. We are focusing on learning the language, rather than focusing on the grades. That is why it is interesting.

Student K said, “When they learn easier European languages, they think all is so boring because it is so easy. But Chinese is not related as any European languages to English. So more interested in that.” Student F noted, “I also think since it is harder to learn Chinese, it is more worthwhile. I can just pick up French or Spanish in five minutes because it is so simple. So I would like to continue Chinese in college.”

Different types of motivations between EC and NC groups. Participants generally agreed that NC-background students may have different types of and higher motivation for

learning Chinese than their EC peers because NC-background students' motivations are usually intrinsic in nature and they need more motivation to succeed in learning a challenging language. Students noted that NC-background students usually learn Chinese because of a passion and interest in Chinese culture and in the beauty of the language. NC-background students also learn the language with the goal of working in China. In contrast, quite a number of EC-background students learn Chinese for the purpose of getting an easy A or are being pushed by their parents to learn the language. Therefore, the motivations of these two groups differ. Following are excerpts from focus group interviews to illustrate what students considered to be the different motivations between EC and NC-background students.

Student I mentioned, "I think Chinese background people have motivation more from their parents, like a lot of people say, because of the economy and it is also an easy grade to get. Non-Chinese people take it because it is a language that they want to learn. But for Chinese background students, they just need a good grade."

Another student stated:

There are differences between Chinese background and non-Chinese background students in terms of motivations. A lot of times, for Chinese background students, because of their parents tell[ing] them about China's booming economy and the business aspect of it is very important. They picked up culture and language from childhood at home from their parents. People like me who don't have Chinese background can't really have such experiences. But in terms of non-Chinese background students' motivation, I think Chinese is more interesting than European languages because all European

languages are derived from Latin roots. So when you learn one, you can sort of grasp another one. But Chinese is challenging. It's totally different, where you learn characters which is totally different than letters. Chinese has an entirely different structure. I guess facing this challenge is more interesting than learning a simple European language.

Student H agreed that there are differences in the motivation for learning Chinese between EC and NC students:

There are definitely differences between Chinese- and non-Chinese-background people in terms of the motivation to learn Chinese. I am Chinese, and I am in AP Chinese. I do not have the motivation for taking Chinese. I just want good grades, and I do not want to forget Chinese or something like that. I just need two years of language. And my mom wants me to do three years. I do not have the motivation, but maybe the non-Chinese background people have the motivation because they want to go to China to do business.

Student G said,

I think non-Chinese students probably may have stronger motivation because a lot of Chinese students take Chinese because they already speak Chinese and they think it would be a pretty easy class. People who are not Chinese have to choose Chinese over other languages, and since Chinese is harder, usually they have a stronger reason to take Chinese.

Student Q stated, “A lot of students who are fluently speaking Chinese did not work hard enough because they think it is too easy. I think it needs to be harder and it needs more challenges.”

Student B also agreed that there are differences in the motivation for learning Chinese between EC and NC groups:

There are differences between Chinese- and non-Chinese-background people. First of all, Chinese students have the motivation to take it because for an easy grade and their parents want them to take it. Personally, I take it not only because of parents, but also at home we speak Cantonese, and I want to see how Mandarin would be like. That is the reason why I take it. For non-Chinese-background students, they have a stronger motivation because it is a difficult language. I think you need to have stronger motivation to stay through the years.

Student K explained why NC students may have a different type of motivation:

I was born in the United States, but I am Chinese. I think there is [a] difference between motivations of Chinese and non-Chinese background students. At least for me, I was learning French in middle school, and I would like to continue with French. But my dad was like, “No, French is a useless language. It is only for romance,” and stuff like that. So he made me learn Chinese because “Oh, you can use it in the future because of China’s economy.” But for non-Chinese background students, they probably have the interests for the language because it is so difficult. So if you are non-Chinese and you are learning Chinese, you are pretty much interested in it because it is not easy to get an A.

NC group continues longer. Three focus group participants confirmed that NC-background students usually continued in the Chinese programs longer than their EC peers. This may indicate that NC students are able to sustain their motivation longer than EC group. None of the participants disagreed with this comment. One student observed that EC students dropped out of the program:

When I was a freshman, classes started out and they were mostly Chinese. Now there were fewer Chinese students in the class. So clearly [Chinese] people have dropped out. So non-Chinese-background students stay for a longer time.

Results of teacher interviews. To further triangulate the research and to gain deeper insights into the findings of the survey, three individual teacher interviews were conducted. The researcher used the same interview guide as for the student focus group with slight modifications in an attempt to examine the similarities and differences between the teachers' perspectives and those of the students. Three Chinese language teachers volunteered to participate in the individual interviews. Details of the teacher interview guide are presented in Appendix C.

The results of the teacher interviews are presented in the following format: (a) results addressing RQ1, (b) results addressing RQ2.

Analysis of teacher interview results. Teacher interviews verified and complemented survey findings and provided different perspectives to interpret survey findings.

First, the teachers' perception of future career prospect of Chinese language as an important factor to motivate students and sustain students' learning of this language verifies

the findings from the survey and student focus groups and supports the language globalization hypothesis. All of the teacher interviewees stressed making teaching and learning connected to authentic application motivates students and puts vitality in teaching as students want to learn a language that can be used in the future. Therefore, it is important to develop authentic application oriented curriculum for world language programs. This finding may be applicable to other content areas as well because authentic application oriented curriculum and instruction may be the foundation to motivate students and sustain student learning in academic subjects.

Second, teacher interviewees' comments on the importance of culture in language teaching supports the findings from the survey and focus group interviews that culture serves as an important factor that motivates and sustains L2 learning because students' interest in exploring the culture of the target language reflects their needs for relatedness (Ryan & Deci, 1980, 2000) and their integrative motivation orientation as suggested by Gardner's socio-educational model and theories (R. C. Gardner, 2006). To sustain students' L2 learning and world language programs, school leaders need to embed culture in world language curriculum and teaching.

Third, all of the teacher interviewees confirmed that the uniqueness of the Chinese language contributes to the challenge of learning this language, which appeals to students and motivates them to learn. Their insight further triangulated the findings from the open-ended question survey that the unique aspect of the Chinese language interests and challenges students and serves as one of the most important factors to motivate and sustain their learning.

Their comments also verified student focus groups' explanation that the uniqueness of the Chinese language creates challenges of learning and makes students feel proud of their achievement in learning this language. This observation supports SDT that satisfying the need for competence is a basic human need that will generate effective performance and psychological well-being. Therefore, there is a need for future research to study the strategies to make students feel proud and successful in L2 learning.

Fourth, teachers' comments on the possible difference between EC and NC student groups are thought-provoking. Their suggestions of NC groups' possible higher motivation tendency and intrinsic type of motivation provide possible topics for future research. A teacher's comment on adding data from the dropout group to gain a deeper understanding for factors sustaining student learning is particularly insightful for future research.

Fifth, a teacher interviewee's comment on the survey finding of NC group's longer continuation in the Chinese program provides a different perspective for this finding. Her interpretation suggested that the longer continuation of NC group in the Chinese program may be caused by the varied placement of NC and EC students in the Chinese classes due to their different prior knowledge in Chinese and therefore, may not indicate NC group will sustain their learning interest longer than their EC peers or vice versa. In this case, teacher interviews complemented the survey investigation.

Last, a teacher interviewee suggested parents play a powerful role in helping students sustain their interest in learning Chinese.

The following interview excerpts illustrated these insights.

Addressing RQ1: factors that motivate students to learn Chinese. To further verify the themes and triangulate the results from the survey and student focus group interviews, the researcher asked the teacher interviewees the same questions with slight modifications as were asked of the focus groups. When the three teachers were asked what motivated students and what they thought were the most appealing aspect of learning Chinese for their students, they suggested that future career prospect, the uniqueness of the Chinese language and culture, and the challenge of learning Chinese motivated students.

Teacher A believed the way Chinese can be used in real life is most appealing to students. All three teachers suggested that making learning connect with the real world has put life in the Chinese lessons and made students enjoy the challenge of learning. They all agreed that the prospect of using Chinese in real life and future careers has a powerful impact on helping students meet the challenge of learning Chinese. In contrast, if students do not perceive the value to their lives of using what they are learning, they will not have the motivation to continue.

Teacher C noted that the uniqueness of Chinese language is appealing to students. She explained:

The fact that Chinese has characters, I think, is a big aspect that makes it interesting. I guess it is kind of almost mysterious. It is different. A lot of my kids, when they first start to learn Chinese, they kind of almost regard it as a secret language like a code, like other people do not know and they know. So it is special. You know, I can show off to my friends. It is more mysterious than Western languages like Spanish or French. Because it

sounds completely different, whether you are writing it or speaking it. When they tell their peers that they are learning this language, it is like a big deal. It is like they are special.

Teacher B cited an example to illustrate the uniqueness of Chinese characters:

When I teach them about the radicals and the components, I explain to them why we do this way, and why we give this name to that. For example, “forget, 忘”, it means your heart is dying. So you put 死 [which means dead or dying in Chinese] on the top [of heart, 心]. They are like, “Wow, that is why you forget!” You forgot because you were absent minded and you did not pay attention. When you pay attention, it is from the bottom of your heart. So students tell me, “You are so knowledgeable. You can tell me how to remember the characters.” When I explain the meaning of the language to them, they learn more. They say it is not boring at all. They like it....They found Chinese characters much more like beautiful art after practicing writing it.

Teacher A noted that Chinese grammar is most appealing to students because there is no verb conjugation, which makes it easier for students to learn and use in real life. She also stated that students are interested in the comparison of Chinese with English because Chinese word order is the opposite from that of English in many cases. Teacher B also commented on the importance of comparing Chinese with English.

Teacher A thought that Chinese culture appeals to students and makes them interested in learning the language. She noted:

What gets them most interested is when the lesson sets into culture, when the lesson integrates language and culture. When culture is being taught while learning the language, they love it. For example, if you say, “Your Chinese is so good!” to a Chinese person, the Chinese person would not respond to you by saying, “Thank you!” Instead, he or she would say, “ ,” meaning, “I wouldn’t think so.”

Teacher A (speaking in Chinese) cited another example to illustrate why Chinese culture is so appealing to her students:

Also, while having guests at the family dinner table, a Chinese host would say, “Hi! My dishes are not very good, but please do help yourself more.” To an American, he or she would think, “If the dishes are not good, why do you ask me to get more? You made lousy food and you want me to eat more?” The logic is not here. It’s not logical to Americans. They just love it. So when culture gets into the language [learning], they are so interested.

Teacher B also agreed that culture played an important part in language teaching. She stated, “I think you are an ambassador of Chinese culture. ... As a teacher, you are not just teaching about the language; you are also mentioning the culture from the beginning.”

Teacher C noted that the uniqueness of Chinese culture interests students. She stated:

Chinese is completely different from Spanish, French, or English. A lot of what interest students are culture [that] play a big part. Chinese culture is a little less known to

foreigners. So being introduced to, like Chinese food, Chinese holidays to them are such a big difference compared to, you know, like Spanish or French cultures.

Why do students enjoy the challenge of learning Chinese? According to the survey, students seem to enjoy the challenge that comes with learning Chinese. In their responses to open-ended questions they ranked challenge as the number five factor of the total 10 that motivate them to choose to learn Chinese. Why do they enjoy this challenge?

Both teachers B and C suggested that students, especially NC-background students, feel it is very special to know Chinese. Students feel it is an honor to know this challenging language that average American students would not know. They enjoy a great sense of pride and competence when they feel they are able to master such a challenging language. The following responses illustrated this theme.

Teacher B stated that knowing Chinese makes students proud: “They feel a sense of accomplishment. This is the reason why they like it. From the challenging part, they feel a sense of accomplishment and a sense of competence, too.” Teacher C also agreed that knowing Chinese makes her students proud:

You know I have students who talk about how they are able to use what they learned in the classroom in the community, you know, like when they go to the Asian food market. I have students who tell me that when they speak Chinese to Chinese people in our community, people would give them the weirdest looks, like you are not Chinese, and you speak the language. So it’s a shock to them. You know they are so surprised to see

non-Chinese people speaking Chinese. But that helps motivate the students to learn the language because “See, I can do it, too.”

Addressing RQ2: factors that sustain students’ learning interest. To address RQ2, the researcher asked: Why do students continue to learn Chinese after meeting the high school world language graduation requirement? What helps maintain their learning interest? The teachers’ perspectives on this aspect are presented below.

All the teacher interviewees believe that meeting the graduation requirements is not a major reason for students to choose to learn Chinese. Commenting on why students continue to learn Chinese after meeting the high school world language graduation requirement, Teacher A said that students want to master Chinese so they will be able to function in the real world and to pass the AP Chinese exam for college credits. She explained,

Chinese is a difficult language. Two years’ requirement [students need to study the language for two years to meet the high school graduation requirement in New Jersey] is in no way to get them even close to these two goals. There is no way for them to even get close to their goals to communicate and complete AP Chinese in two years. They need to continue because meeting the graduation requirement is not their final goal.

Teacher A suggested students’ sense of success is one of the most important factors in sustaining learning interest. She explained:

If they see the learning results, if they feel successful, they will continue in the program.

If they don’t feel they are successful, even though they want to communicate with

Chinese people, even though they have a career goal to go to China, they would leave the program..... So I think the most important factor is the sense of success.

Teacher A noted that teachers are very important in helping students feel successful, because teachers can motivate or de-motivate students. Teachers can make a difficult language less difficult or even more difficult. She stated:

The trickiest part is how you make it less difficult. I think careful lesson planning and a teacher has to observe and reflect and adjust the teaching all the time to push the students, but push to the point where they feel successful. This is like two-dimension. You cannot just make the learning of Chinese easy. If you just teach ‘ ’ [How are you?] and how to make dumplings, it’s not going to work because students are not going to feel successful. You have to make them feel successful and push them. But if you push them too hard, they will feel they can’t do it, and they will be de-motivated and leave. So push them to the point that they are still feeling successful, but they are trying very hard.

Teacher A commented on the strategy to challenge students and help them feel successful. She suggested on-going adjustment of teaching based on the observation and student feedback is the strategy to help students feel successful and sustain their learning interest. She stated:

Observe the class and also involve students in the evaluation. Get the students’ feedback all the time. Let’s say after one week, especially when you get a new class, a new level, after a few days, and after one week’s lesson, then you ask the students, “Am I moving

too fast? What do you think? Can I move a little faster? How do you feel? Are you feeling comfortable about the pace? What do you like? What activity do you think is helpful?" I observe students' faces. If they look lost, I'll stop and adjust my teaching immediately.... I just feel this is very important and also this is what helps students maintain their learning interest.

Teacher B also mentioned that teachers play an important role in sustaining students' learning interest. She noted:

During the high school years, teachers' teaching is influential on students' learning experience. It is an interaction. So no matter how bad their grades are, if they like you, they want to learn. It is the best part to keep them learning Chinese. Another one [factor], which has the higher motivation, is career oriented, the job.

Teacher A suggested that parents play a powerful role in helping students sustain their interest in learning Chinese. She stressed,

Another factor is parents. Parents help students remain interested because they would talk at home. A lot of teachers do not realize the influence from parents is very powerful. Very often students are repeating what their parents say. So actually the communication between the parents and teachers is very important.

Teacher B mentioned a more powerful factor in sustaining students' motivation is the future career prospects, which are closely associated with China's rising economy. She stated:

A lot of my kids tell me that they continue to learn Chinese even after meeting the high school language requirements is because, first, with the economy in the world the way it is, China plays a big factor on economy, and a lot of my students who are interested in going into the business world, really feel like Chinese is a language that would benefit them if they know it there. You know, when they go to look for jobs and careers in the future. So I know a lot of my students continue to learn Chinese because they want to learn a language that is useful in the future.

Teacher C also mentioned that the perceived usefulness of Chinese helps sustain student interest. She said that students generally have a sense of their future career paths. If they want to major in business, they feel they may not need science or history. If they want to study science, they feel they may not have to know history. But in any field or major, everyone has to use a language to communicate. Some may need to use Chinese, which is why they want to continue learning the language.

Teacher B feels students generally perceive Chinese as fun to learn. This perception sustains their motivation. Students' self-motivation also plays an important role in maintaining their learning interest. She noted:

They think Chinese is fun. When they think of that, they would learn. I feel like even though they like it, it is really based on their own motivation. Because I know some parents who push their kids into learning Chinese, but if they do not care, you just cannot help them. I think it is all about their self-motivation.

To address RQ2 and explain the survey finding that NC-background students continue in Chinese programs significantly longer than EC students, two opposite responses emerged.

Teacher A is doubtful of the survey finding. She argued that it was hard to use ethnic groups to compare students and make a conclusion because there were highly motivated EC students as well. Consequently, it is hard to say that NC-background students have a stronger motivation. However, she agreed that some EC-background students feel it is easy for them to learn Chinese so they do not pay much attention. As a result, some NC-background students did better than native Chinese-speaking students.

However, both Teacher B and Teacher C agreed that NC-background students may have a higher motivation in general. They felt that on the whole NC-background students displayed greater motivation. But Teacher C noted there were two types of EC-background students: highly motivated and less motivated. She said, "I think the biggest difference again is whether or not they start learning Chinese because they want to learn Chinese. A lot of non-Chinese background students are taking the language because they want to learn. So they are willing to stick with it."

Teacher B also observed that a number of NC students displayed a fundamentally different attitude from their EC peers. She explained:

Non-heritage students may stop very quickly if they do not want to continue. But these students are totally different from the Chinese students in attitude. They still want to learn but they are not confident. But Chinese students think that it is a piece of cake.

There is nothing that I should learn.

Teacher B commented on the negative impact of EC students' cultural identity crisis on L2 motivation. The cultural identity crisis refers to some EC students' refusal to identify themselves with Chinese culture. These EC students feel that Chinese culture is not theirs because they were born and raised in America. Teacher B suggested:

I think Chinese students are willing to follow if they choose to. It is pretty diverse. If they want to follow, they are fabulous, and they learn a lot. There is another part that they hate Chinese. They hate being Chinese. They have identity crisis. They feel they are Americans. They come here because their parents want them to keep their traditional culture, which is not their traditional culture. So in this case, these kids do not learn much. They do not want to come out from the comfort zone. They just stay lazy.

All the teacher interviewees indicated that EC-background students do have an advantage over their NC peers in learning Chinese because they hear the language spoken at home and can receive help from their parents. However, Teacher A noted there is a need to distinguish whether an advantage is a language environment advantage or motivation advantage because the advantage possessed by EC-background students over their NC peers is primarily a language environment advantage instead of a motivation advantage. Teacher A argued that EC students' language environment advantages can turn into disadvantages if these students lack the motivation advantage.

The interview results suggested that the NC-background student group generally possessed a motivation advantage over their EC peers, while the EC student group usually had a language environment advantage. The teacher interviewees felt that the motivation

advantage usually outweighed the language environment advantage. Therefore, Teacher C did not think NC-background students are at a disadvantage compared with their EC peers. The following interview excerpts illustrated this finding.

Teacher A provided an example to explain why EC students' advantage may turn into disadvantage. She explained:

Some Chinese students feel it's easy so they don't pay too much attention. So in the end, NC-background students do better than native Chinese-speaking students. During this school year's final presentation, some good NC-background students did better than Chinese background students in their presentations because they tried harder....

Everything has a good side and a bad side. Advantages sometimes can turn into disadvantages, and disadvantages can become advantages. If a student can use his or her Chinese background as an advantage, it becomes an advantage. If not, advantages will become a disadvantage. When a student uses the advantage, it is a plus. But when a student does not use the advantage, the advantage becomes a disadvantage. Some Chinese-background students don't work hard. So their grades are not as high.

Teacher A suggested that people have to distinguish whether the advantage is a language advantage or motivation advantage.

Teacher B agreed that EC students do have an oral speaking advantage and that helps them form sentences. However, she observed some EC students do not write correct characters and do not use advanced structure in writing. She stated that these EC students use simple syntax, like level 1 or level 2, and never go up to level 3 or level 4. She feels

NC-background students want to learn and are more serious in learning Chinese.

Teacher C also agreed that NC-background students may have stronger motivation than their EC peers. She noted:

I almost feel like they [non-Chinese background students] have a stronger motivation because they do not have the background, they do not have the family talking with them at home. They have to do a lot of learning on their own. So they push themselves even more and even harder to learn, whereas when you teach Chinese [background] students, they feel like they can speak it. They think they can write it and read it as well.

Sometimes it is not necessarily the case. Or they feel like I can communicate what I know and that is good enough so I do not have to learn anything else.

In addition, Teacher C suggested that NC students have higher motivation and may not have a disadvantage in learning Chinese. She explained:

I think Chinese background students might have an advantage when it comes to use the language on the daily basis because a lot of them speak Chinese at home. ... Whereas I think non-Chinese background students, some of them often come to see me after school to receive help. Some of them ask their peers in higher Chinese levels to help them and their friends who speak Chinese to help them. I do not necessarily say they have a disadvantage [because] I think they try just as hard or even harder to really memorize what we give them and learn it well. And they use it in the classroom.

The interview results indicated that motivation advantage helped NC-background students master Chinese characters, which is challenging not only to NC-background students

but also to their EC peers. The following interview illustrated the above finding.

Teacher C noted motivation and responsibility help NC-background students master Chinese characters. She stated:

I think when they first come to learn Chinese characters, it is a little more difficult because it is completely different. But to be honest with you, I have non-Chinese background students who write characters better than Chinese-background students because I almost feel like non-Chinese background students know that this is their responsibility to learn it. If they do not learn it, there is nobody there helping them learn. So I have non-Chinese background students who write all in characters now in my class when I give them assignments and essays to write. And I have a lot of Chinese background students who would actually write in Pinyin and they would say, "I know, I can recognize the word, but I just cannot write it, you know."

When asked about the survey result that indicated that NC-background students would continue in the Chinese program significantly longer than EC-background students if other factors were being controlled, the teachers expressed different views. Teacher A disagreed with the interpretation of the survey finding that NC students continue in Chinese programs significantly longer than EC students and, therefore, they may be able to sustain their learning interest better. She suggested two factors that may make the above interpretation invalid.

First, EC students with a Chinese language background do not start the program at Level 1. Most of them are placed in Chinese Level 3 or 4. Therefore, the length of their stay in the Chinese program will definitely be shorter than that of EC-background students. Second, the

interview data only came from students who remained in the Chinese programs and no data was collected from students who dropped out from the programs. So the data reflected only one group's opinion.

Teacher A suggested that the researcher reexamine the survey result that indicated NC-background students are more likely to continue in the Chinese language program significantly longer than EC-background students as no data is available from students who have already dropped out. She said, "You cannot come to the conclusion saying that NC-background students are more motivated than EC-background students because of the different length of staying in the program caused by the different placement arrangement."

However, Teacher B agreed with the interpretation of the survey finding that NC-background students would continue in the program significantly longer and that their motivation for learning Chinese would probably be more sustainable than that of their EC counterparts. She noted, "Actually, I am not surprised at the result based on my teaching experience during the past four years.... I would like to teach non-heritage students because...their learning results were actually amazing, very rewarding for me as a teacher to teach non-heritage students."

Teacher C also agreed with the above survey finding. She explained:

A lot of times I think that it is because NC-background students begin taking the language because they are actually interested in learning Chinese, so they actually have that original want to learn the language. So once they start as long as they continue to be

interested in [it], they continue to progress in the language level, they will continue to learn Chinese. Whereas from what I heard in the classroom, a lot of Chinese background students take the language because when they are younger, their parents make them take it, or because they think it is a class that is easy to get an A as they have the Chinese background. So after they meet their requirements, or after they get up to a certain level, or it gets a little more difficult, they have the tendency to give up a little more, or resign to the fact that I can speak the language, it is what my parents want and now I am done. They have a different mindset why they want the language.

To verify the finding from the focus group interview that the status of Chinese as a global language increases students' motivation, the researcher asked the teachers the same question. All three teacher interviewees agreed that Chinese is becoming a global language and this has increased students' motivations. The following interview excerpts illustrate this finding.

Teacher C explained why she supported the world language status hypothesis: "I actually agree with that [global or world language status hypothesis]. I think if a language has achieved global status and people see the importance of learning it, then they will try their best to learn it, you know, if they have the opportunity to do that."

Teacher B also explained the reasons why Chinese is becoming a global language: "Oh yes. It is because of the job opportunity. It again is based on the reality. I think this is the reality that Mandarin is becoming a global language. I know some people still do not believe it. But if people took Mandarin earlier, they may have a higher tendency to get a job."

Summary of Qualitative Investigation Findings

In this study, two open-ended questions were included in the student survey to allow participants to explain their answers more fully. In addition, the student focus group and teacher interviews were used to help the researcher gain a deeper understanding of the language learning motivational factors that emerged from the analysis of the initial student survey.

The qualitative data in this study include:

- (a) students' responses to two open-ended questions in the survey,
- (b) two student focus group interviews, and
- (c) three individual teacher interviews.

There are five major findings in the qualitative investigation. First, all three types of qualitative data indicated that the perceived career prospect associated with China's rising status in the world economy is the most important motivator for students to choose to learn Chinese. It is also the most important factor in sustaining their interest in learning this language. This explains why students continue learning Chinese beyond meeting the high school world language graduation requirement. Their goal is to master the language instead of simply satisfying the graduation requirement.

Second, the desire to study Chinese culture and EC students' desire to maintain their heritage are important factors motivating students and maintaining their interest.

Third, NC-background students were able to sustain their interest longer than their EC peers because these two groups may have different types of motivation. NC-background students generally have intrinsic motivation while a number of EC students may not be intrinsically motivated.

Fourth, the uniqueness and challenging aspect of the Chinese language is another important motivator. Students reported that it is one of the most appealing aspects of learning this language, and they enjoyed the challenge.

Fifth, both EC and NC groups and both intermediate and advanced students reported the same set of factors that motivated them to choose to learn Chinese and sustained their motivation.

Chapter Summary

This chapter reports the results of the present study. The research was conducted in two phases. Phase 1 contained both a quantitative survey and qualitative open-ended question responses. Phase 2 included qualitative student focus group and teacher interviews. The results addressed the research questions.

First, the quantitative survey provided a general picture and answers to the two research questions and their sub-questions. Frequency analysis of the survey responses indicated that future career prospects and China's economy are the most important factors motivating students to choose to learn Chinese. This result answered RQ1: "Which motivational factors influence New Jersey high school students to choose to learn Chinese to meet the high school

graduation requirements?” Frequency analysis of the survey responses also indicated that the students’ ethnic backgrounds or Chinese class levels do not influence their language choice. Because both EC- and NC-background students as well as both advanced and intermediate students reported similar reasons for choosing to learn Chinese. This result answered the two sub-questions of RQ1.

Second, no correlation was found between instrumental motivation and expectancy for the NC group. Regression analysis predicted that NC-background students would continue in the Chinese programs significantly longer and sustain their learning interest longer than their EC peers. This result addressed RQ2: “Which factors sustain students’ learning interest and help them persist in learning Chinese beyond meeting the high school graduation requirement?”

Last, the qualitative data from the open-ended questions offered similar results as those from the quantitative surveys. Students reported “Future career and China’s economy” as their most important factor in choosing to learn Chinese and sustaining their interest in learning it. They also reported that the interesting and challenging aspect of the Chinese language is an important reason to choose to learn Chinese. This finding also addressed RQ1. It was found the NC group ranked the interesting and challenging aspect of Chinese language study higher than the EC group. The NC group also ranked the instrumental motivational factor, which is the practical benefits of learning Chinese, higher than the EC group.

Phase 2 of this study expanded on the survey findings and helped explain and, in some cases, challenged the survey findings. First, the student focus group interviews verified and

triangulated the survey results. It also added breadth to the study. The focus group interviews verified the survey findings as participants reported “future career and China’s economy” as their most important reason for choosing to learn Chinese and sustaining their interest.

Second, focus group participants also agreed that the NC-background students generally have a different type of motivation than their EC peers. Their motivation is intrinsic by nature and, therefore, is more sustainable. They reported that the challenging aspect and uniqueness of the Chinese language, the interesting aspect of Chinese culture, the growth of China’s economy, and their teachers’ engaging teaching style all contributed to the appealing aspects of learning Chinese.

Third, the focus group interviews found that students enjoy the challenge of learning Chinese, which makes the learning interesting. Participants also confirmed that Chinese culture and history and the global status of the Chinese language have increased students’ motivation.

Fourth, teacher interviews provided further triangulation for the survey and focus group findings. Teacher responses helped explain the survey findings that the NC-background students’ learning interest in general is more sustainable as a result of this group’s intrinsic motivation. However, one of the teachers offered two reasons for challenging the interpretation of the survey finding that NC students continue in Chinese programs significantly longer and their learning interest in Chinese is more sustainable than EC students: (a) EC students were usually placed at a higher level because of their prior

knowledge of Chinese, which enabled them to complete the program faster than NC students;

(b) No data were collected from students who had dropped out of the program.

Last, the teacher participants agreed that connecting learning to the real world, integrating Chinese culture to their teaching, and helping students feel successful sustain students' motivation.

Chapter 5 Discussion

This chapter discusses the findings of the current study that address the two research questions, which are: 1. Which motivational factors influence New Jersey high school students to choose to learn Chinese to meet the high school graduation requirements? 2. Which factors sustain students' learning interest and help them persist in learning Chinese beyond meeting the high school graduation requirements?

What Motivate Students to Learn Chinese and Sustain Their Learning?

The results of the study indicate there are three factors that motivate all students to choose to learn Chinese. These are (a) the importance of the Chinese language in the current global economy, (b) the interesting, challenging, and unique aspects of Chinese as a language; and (c) the appeal of accessing Chinese culture through learning the language. There are two factors that sustain all students' motivation for learning Chinese: job prospects connected to China's economy and the interesting aspects of the Chinese language and culture.

Chinese as a world language. When generalizing the findings of this study to the larger question of why high school students, when given a choice of languages to learn, choose one over another, the issue of perception of the "status" of the language is clearly important in decision-making. The findings of this study support the language globalization theory (Dörnyei and Csizer, 2002) that the rapid growth of China's economy has elevated Chinese to world language status that students see as a useful asset for future careers. When this occurs, students are motivated to study the language and are able to sustain their learning regardless

of its difficulty. In the open-ended survey question, career prospects connected to China's economy was reported as the most important or the second most important factor for both EC- and NC-background students in choosing to learn Chinese and sustaining their learning. In this respect, the study suggests that current student choice between optional languages is operating in the same way as it did for Russian in the 1960s and 1970's when the Soviet Union was seen as a powerful world force, and for Spanish in the 1980's and 90's when it became apparent that the language would rival English use in the United States. In both cases schools offered these languages, and students with no background in either opted to study them.

The importance of language status is further confirmed in the study by the finding that for the NC students their choice of language was not influenced by perceptions of whether they would be successful in mastering it. NC students listed "Getting a good job" and "Chinese is important in the world economy" as their most important reasons for choosing to learn Chinese and sustain their learning. They appear to be motivated to take up the challenge of learning Chinese regardless of a low expectancy of doing well. This is indicated by the lack of correlation between NC students' instrumental motivation and the expected probability of being successful in learning.

In contrast, EC students with a knowledge of language and culture gained from their families and communities did not anticipate difficulties in their Chinese courses and felt confident they would obtain the grades they needed to pass. The survey found the perception that the Chinese language course would be an easy option was one of EC students' most

highly ranked motivational factors in learning Chinese, and that there was a strong correlation between these students' instrumental motivation and expected probability of being successful. What is not indicated by the study is whether, had Chinese not been perceived as a world language, EC students would still have chosen to study Chinese because of their cultural links and expected success in the course or if they would have chosen another language that they perceived would be important for their career plans regardless of its difficulty and the potential for lack of success, like their NC peers.

Interesting, challenging, and unique aspects of Chinese as a language. Both EC and NC students indicated in their responses to open-ended survey question 1 that the interesting and unique aspect of the Chinese language was one of their three most important reasons for choosing to study it. The focus group discussions and teacher interviews suggested explanations. Students noted that the uniqueness of Chinese as a language contributes to the difficulty and challenge of learning it.

It may sound surprising that the EC group also reported that Chinese culture was one of the most important motivational factors in their study of Chinese. Most of these heritage students were born and raised in the United States and may not be familiar with Chinese culture. The survey results indicate that they feel a need to understand and connect with their cultural heritage. This may explain why the EC group also indicated that the attractiveness of Chinese culture was one of the most important factors motivating them and sustaining their study of Chinese.

Chinese is acknowledged as a difficult language to learn (along with Russian and Arabic,

for example) for a number of reasons. Unlike European languages, Chinese is not derived from Latin roots, so it has no language links for NC students. It is totally different in its structure, pronunciation, and writing system. Instead of an alphabet, it has thousands of characters. Moreover, Chinese is a tonal language, which creates a considerable challenge for Western learners whose mother tongue is not tonal (Liu et al., 2011). Chinese has four major tones, and different tones signify different meanings. NC students explained in the focus group discussions that this difference between Chinese and English makes it difficult to learn, but also keeps students interested because it requires a new way of thinking. In this respect, the results of the study support Self-Determination Theory (SDT) proposed by Ryan and Deci (1980, 2000) that learning a challenging subject satisfies an innate need for competence and generates a powerful motivation that sustains learning.

NC students acknowledged that learning Chinese takes more hours than learning European languages, but the experience is very rewarding because it makes them stand out from their peers as so few American high school students know Chinese. According to Rhodes and Pufahl (2010), only 4% of middle and high schools in the United States offered Chinese programs in 2008 despite a quadruple increase from 1997. NC students noted gaining a sense of pride from undertaking and succeeding at an endeavor that their peers acknowledge is difficult motivates them and sustains their learning. The present study found NC students continued in the Chinese programs significantly longer than EC students. However, according to the teacher interviews this may be the result of different placement of NC and EC students as EC students were usually placed in higher-level Chinese language

classes because of their prior knowledge of Chinese and ability to finish the program faster than their NC peers. In this case, the shorter stay of EC students in the Chinese program does not indicate this group would not be likely to sustain their motivation longer.

Qualitative data from both the survey and focus groups indicated that NC students considered the link between culture and language interesting and it enhanced their motivation to learn Chinese. Language has meaning only in culture (Nababan, 1974). In this respect, these students are acknowledging the close relationship of language and culture (Emma, 2010), and China's 5,000 years of history adds interest and focus to their language studies. NC students' desire to explore Chinese culture also reflects the integrative motivation proposed by Gardner's socio-educational model (Gardner, 2006).

Language as the gateway to culture. Both NC and EC students reported in their responses to open-ended question 2, "What is the most important factor that keeps your interest in learning Chinese?" that the use of language to access Chinese culture is the second most important factor in sustaining their interest in learning Chinese. This was clearly recognized by the teachers interviewed, who noted that when they used elements of the Chinese culture to frame their language lessons, it generated student interest. The link between language and culture is complex and students' understanding of language as an integral part of a given culture may further increase their motivation to learn Chinese.

The results of the study clearly indicate that the interest of EC students in the language as a gateway to understanding culture is linked to a desire to relate to their cultural heritage or identity. A critical field that teachers and administrators must understand and embrace is

students' cultural identity and its powerful impact on their motivation and academic performance (Ford-Harris, 1991; Gunderson, 2000; Gunderson, 2007; Lee & Zhou, 2004; Portes & Hao, 1998). For heritage learners, losing their language brings unexpected loss, including the loss of one's own cultural identity, which may negatively affect students' achievement and upward social mobility (Lee & Zhou, 2004; Moses, 2000). As such, EC students' interest in Chinese as a gateway to understanding their culture may be interpreted as the need for relatedness to their heritage, which is one of the three basic human needs proposed by SDT and explains the EC students' high ranking of this factor in both their choice of learning Chinese and continuing with the language.

Implications. The findings in this area suggest several recommendations for school leaders and language program coordinators. First, by their very nature, difficult and challenging Asian languages such as Chinese may motivate some students to study them, providing these students with an opportunity to satisfy their need for competence and to test new approaches to thinking and learning as they attempt to master the language's complexity. Most public schools in the United States offer European languages, but few secondary-level schools provide Asian languages like Chinese. To provide students opportunities to meet their needs for competence and diversity in learning and thinking, school leaders may need to rethink the choices in their world language program offerings. Second, the integration of cultural studies into language classes is another source of interest for students. Students reported satisfaction in gaining a sense of the close relationship of language and culture that further sustains their learning. EC students' desire to learn Chinese as a gateway to access

their culture and heritage plays an important role in maintaining their cultural identity and academic performance. Language reflects one's own cultural identity. According to Phinney (1988), foreign-born Asians have significantly higher academic achievement than American-born Asians because the experience of immigration makes people more aware of their ethnic identity. Phinney's discovery offers insights on the importance for heritage learners of maintaining their heritage and cultural identity through L2 learning.

Similarities between the Present Study and Research Using the Same Instrument

The findings of this study suggest a number of similarities to those of a study conducted by Husseinalis (2006), which also used Wen's survey instrument. Husseinalis' research examined U.S. college students' motivation for learning Arabic. He found Arabic Foreign Language (AFL) heritage learners' motivations were significantly different from those of non-heritage learners. AFL heritage learners reported a lack of motivation to learn Arabic due to their placement in the same class with non-heritage learners. They found the classes did not challenge them as the teacher needed to accommodate the needs of lower-level non-heritage learners (Husseinali, 2006).

The finding of Husseinali's research was similar to that of the present study, which also found that EC-background students in general perceived Chinese language class as "easy" and tended to display a tendency toward lower motivation than their NC peers. In the present study's survey, EC students' response frequency of their reasons for taking Chinese as "the class is less demanding" was three times higher than that of NC students (29% vs. 9%). The perceived "easy" aspect of Chinese language classes in the minds of EC students may explain

this group's lower motivation tendency than the NC group's, as perceived by teachers and student focus group participants. This reduced motivation may result from the EC students being placed in the same class with NC students. Such placement may make the Chinese language classes lacking in challenge for EC students, as what happened to AFL heritage learners in Husseinali's study.

In addition, Husseinali's study found non-heritage learners were significantly more motivated than heritage learners to study Arabic as a foreign language by instrumental motivation, or the perceived benefits of learning Arabic. The findings of this study mirror Husseinali's. The NC-background students displayed significantly higher instrumental motivation than their EC peers as they scored 13% higher on the item "Getting a good job" as one of their most important motivational factors in learning Chinese.

Recommendations and Future Research

The findings in this study provide several recommendations for school leaders, language program curriculum coordinators and teachers.

Recommendations for school leaders. Difficult and challenging languages such as Chinese may motivate students to study them by their very nature, providing these students with an opportunity to satisfy their need for competence and to test new approaches to thinking and learning as they attempt to master the complexity of the language. School leaders would do well to consider this need for competence in relation to providing challenges for gifted students and those with a particular interest in and aptitude for learning languages.

Recommendations for teachers. The integration of cultural studies into language classes is another source of interest for students. Students report a sense of satisfaction from gaining an understanding of the close relationship of language and culture that further sustains them through their language course. Moreover, it is important for heritage learners to maintain their heritage and cultural identity through learning L2 as a gateway to access their culture. This has important implications for advancing heritage learners' academic achievement according to Phinney (1989). Language teachers need to consider the importance of embedding language programs in cultural studies to maximize the motivation generated by this factor and to sustain the language programs.

Recommendations for curriculum development. The issue of whether heritage and non-heritage students should be taught in the same class is not clear cut. The results of this study and a study conducted by Husseinalis (2006) suggest that school districts may need to change the practice of placing heritage students with non-heritage students in the same class in order to create a more challenging learning environment for heritage learners and to change this group's perception of the language class being "easy". However, the counter-argument would suggest that non-heritage language learners may benefit from having heritage learners in their classes through accessing help from their heritage peers in their language studies and developing peer support as indicated by the teacher interviewees and student focus group discussions. Schools may do better to ensure that language teachers differentiate instruction in classes, rather than separating the heritage group from their non-heritage peers. Finding the optimum way of combining both groups to benefit both,

while maintaining the motivation of heritage learners, is an area that would warrant further research.

The findings of the present study support the language globalization hypothesis proposed by Dörnyei and Csizer (2002) that the perceived status of a language is important to students' decision to choose an L2 based on career prospects. This suggests that school leaders and language program coordinators should be sensitive to the learners' language status perceptions and respond quickly to the changes of student needs and interests in L2 choice. Students should be encouraged to take challenging and diverse language programs to satisfy their desire for competence and to develop new ways of thinking and learning. At present, most public schools in the United States offer European languages, but only a few offer Asian languages including Chinese (Pufahl & Rhodes, 2011). With the globalization of the economy, a school may need to consider offering both European and Asian languages.

Recommendations for future studies and limitations. This study examined the L2 learning motivational factors of students from a high socio-economic group, who has an awareness of world issues and the practical benefits of learning Chinese. The L2 motivational factors of students in inner city and rural areas may be totally different or non-existent. Future studies may need to examine the possible different L2 learning motivations of students from lower socio-economic groups in inner city and rural areas.

When faced with a challenging language like Chinese, language programs need to ensure that students have ample opportunities to feel successful and proud of their achievement. This is the key for many students to sustain their motivation, and it requires careful thought about

goal setting and opportunities to demonstrate competence. What would be an effective way to help students feel successful and proud of learning L2 may be a topic for future research.

There are few studies of high school students' motivation for learning Chinese and other less commonly taught languages. This may be a field for future L2 motivation research.

The present study collected data from students who were in the Chinese program. No data were collected from the students who had dropped out from this language program. The absence of data from the dropout group may create a limitation in understanding the factors that sustained L2 learning. To obtain a deeper understanding of the factors that sustain student learning, future studies may consider including the dropout group in the research of L2 motivation.

Conclusion

This study explored the perceptions of 217 students who are learning Chinese at two New Jersey high schools regarding the factors that influence students to choose to learn Chinese and factors that sustain their learning of this language. In addition, the perceptions of Chinese language teachers and student focus groups were used to verify, explain and expand the findings from the survey of the students. The findings suggested that the perception of future career prospects connected to China's economy was one of the most important factors that motivated students to choose to learn Chinese and sustained their learning of this language. This finding supports the language globalization hypothesis proposed by Dörnyei and Csizer (2002) as such that Chinese is in the process of being changed into a world language due to the rapid growth of China's economy. Therefore, it is imperative the school

leaders be sensitive to the learners' language status perceptions in the selection of languages for the world language programs.

The present study also found that the unique aspects of Chinese language and culture contribute to the challenge of learning this language and serve as another important factor to motivate students and sustain their learning. Unlike European languages, Chinese is a pictograph, which entertains visual learning. The uniqueness of Chinese characters and calligraphy carries an inherent beauty, which makes the learning of this language cognitively appealing and motivating to learners. Non-Chinese background students tend to feel proud of their achievements in learning Chinese as they are able to satisfy their needs for competence through meeting the challenge of learning this language. To motivate students and sustain their L2 learning motivation, school leaders need to consider developing a diverse world language program that includes both European and Asian languages to offer students the choices and opportunities to satisfy their needs for competence. Moreover, this study found that heritage is EC students' most important motivator to learn Chinese and one of the important factors to sustain their learning of this language. The desire to maintain one's heritage through L2 leaning reflects heritage learners' need for relatedness to their roots and culture, one of the human beings' innate psychological needs according to Deci and Ryan (2008b), as such it plays an important role in developing and enhancing heritage learners' cultural identity, which has profound implications to this group's academic performance and psychological well-being. To ensure the successful performance and growth of heritage learners in the American society, school leaders need to consider implementing a diverse L2

language program to meet the heritage learners' needs for relatedness.

In addition, similarities were found between the present study and a study conducted by Husseinali (2006), who investigated college students' motivation for learning Arabic using a similar instrument. The findings were not meant to change the present world language programs in the U.S. public schools, but to provide for data and anecdotal evidence about factors that motivate students to choose to learn Chinese and factors that sustain their learning. It is intended to provide data for public schools in the United States and international schools overseas that are contemplating adoption and implementation of a Chinese language program.

References

- Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology, 84*(3), 261-271. doi: 10.1037/0022-0663.84.3.261
- Cai, S. (2011). *The impact of an online learning community project on university Chinese as a foreign language students' motivation*. (Doctoral dissertation, University of South Florida). Retrieved from <http://search.proquest.com.ezproxy.lib.lehigh.edu/docview/865045989>
- Chen, Y. (1995). *Language learning strategies used by beginning students of Chinese in a semi-immersion setting*. (Doctoral dissertation Indiana University). Retrieved from <http://search.proquest.com.ezproxy.lib.lehigh.edu/docview/304199929>
- Clément, R., Dörnyei, Z., & Noels, K. A. (1994). Motivation, self-confidence, and group cohesion in the foreign language classroom. *Language Learning, 44*(3), 417-448. doi: 10.1111/j.1467-1770.1994.tb01113.x
- Comanaru, R., & Noels, K. A. (2009). Self-determination, motivation, and the learning of Chinese as a heritage language. *Canadian Modern Language Review, 66*(1), 131-158. doi: 10.3138/cmlr.66.1.131
- Covington, M. V. (2000). Goal theory, motivation, and school achievement: An integrative review. *Annual Review of Psychology, 51*, 171-200. doi: 10.1146/annurev.psych.51.1.171

Creswell, J. W. (1994). *Research design: Qualitative and quantitative approaches*. Thousand Oaks, California: Sage Publications, Inc.

Crookes, G., & Schmidt, R. W. (1991). Motivation: Reopening the research agenda. *Language Learning, 41*(4), 469-512.

Cutshall, S. (2005). Why we need "the year of languages". *Educational Leadership, 62*(4), 20-23.

Dawson, C., & Dean, J. (2011, Feb 14). Rising china bests A shrinking Japan. *Wall Street Journal*, pp. A.1.

Deci, E. L., & Ryan, R. M. (1980). Self-determination theory: When mind mediates behavior. *Journal of Mind and Behavior, 1*(1), 33-43.

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*(4), 227-268. doi: 10.1207/S15327965PLI1104_01

Deci, E. L., & Ryan, R. M. (2002). Self-determination research: Reflections and future directions. *Handbook of self-determination research*. (pp. 431-441) Rochester, NY, US: University of Rochester Press.

Deci, E. L., & Ryan, R. M. (2008a). Facilitating optimal motivation and psychological well-being across life's domains. *Canadian Psychology/Psychologie Canadienne, 49*(1), 14-23. doi: 10.1037/0708-5591.49.1.14

- Deci, E. L., & Ryan, R. M. (2008b). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian Psychology/Psychologie Canadienne*, 49(3), 182-185. doi: 10.1037/a0012801
- Deci, E. L., Vallerand, R. J., Pelletier, L. G., & Ryan, R. M. (1991). Motivation and education: The self-determination perspective. *Educational Psychologist*, 26(3-4), 325-346. doi: 10.1207/s15326985ep2603&4_6
- Dörnyei, Z. (1994). Motivation and motivating in the foreign language classroom. *Modern Language Journal*, 78(3), 273-284. doi: 10.2307/330107
- Dörnyei, Z. (2000). Motivation. (pp. 425-432) Taylor & Francis Ltd / Books.
- Dörnyei, Z. (2000). Motivation theories. (pp. 432-435) Taylor & Francis Ltd / Books.
- Dörnyei, Z., & Csizér, K. (2002). Some dynamics of language attitudes and motivation: Results of a longitudinal nationwide survey. *Applied Linguistics*, 23(4), 421-462.
- Emma. (2010). The relationship between language and culture. Retrieved from <http://www.lexiophiles.com/topic/the-relationship-between-language-and-culture>
- Ford-Harris, D. Y. (1991). Meeting the psychological needs of gifted black students: A cultural perspective. *Journal of Counseling and Development*, 69(6), 577-580.
- Gardner, R. C. (1968a). Attitudes and motivation: Their role in second-language acquisition. *TESOL Quarterly*, 2(3), 141-150.

Gardner, R. C. (1968b). Attitudes and motivation: Their role in second-language acquisition.

TESOL Quarterly, 2(3), 141-150.

Gardner, R. C. (1985). *Social psychology and second language learning: The role of attitudes*

and motivation London: Edward Arnold.

Gardner, R. C., Glikzman, L., & Smythe, P. C. (1978). Attitudes and behaviour in second

language acquisition: A social psychological interpretation. *Canadian Psychological*

Review/Psychologie Canadienne, 19(3), 173-186. doi: 10.1037/h0081474

Gardner, R. C., & Lambert, W. E. (1965a). Language aptitude, intelligence, and

second-language achievement. *Journal of Educational Psychology*, 56(4), 191-199. doi:

10.1037/h0022400

Gardner, R. C., & Lambert, W. E. (1965b). Language aptitude, intelligence, and

second-language achievement. *Journal of Educational Psychology*, 56(4), 191-199. doi:

10.1037/h0022400

Gardner, R. C., & Lambert, W. E. (1959a). Motivational variables in second-language

acquisition. *Canadian Journal of Psychology/Revue Canadienne De Psychologie*, 13(4),

266-272. doi: 10.1037/h0083787

Gardner, R. C., & Lambert, W. E. (1959b). Motivational variables in second-language

acquisition. *Canadian Journal of Psychology/Revue Canadienne De Psychologie*, 13(4),

266-272. doi: 10.1037/h0083787

- Gardner, R. C., & MacIntyre, P. D. (1993). A student's contribution to second language learning. part II: Affective variables. *Language Teaching*, 26, 1-11.
- Gardner, R. C., & Masgoret, A. (1999). Home background characteristics and second language learning. *Journal of Language & Social Psychology*, 18(4), 419.
- Gardner, R. C., & Tremblay, P. F. (1994a). On motivation, research agendas, and theoretical frameworks. *The Modern Language Journal*, 78(3), pp. 359-368.
- Gardner, R. C., & Tremblay, P. F. (1994b). On motivation: Measurement and conceptual considerations. *Modern Language Journal*, 78(4), 524-527. doi: 10.2307/328591
- Gardner, R. C. (2006). The socio-educational model of second language acquisition: A research paradigm. *EUROSLA Yearbook*, 6, 237-260.
- Gunderson, L. (2000). Voices of the teenage diasporas. *Journal of Adolescent & Adult Literacy*, 43(8), 692-706.
- Gunderson, L. (2007). *English-only instruction and immigrant students in secondary schools: A critical examination*. Lawrence Erlbaum Associates. 10 Industrial Avenue, Mahwah, NJ, 07430. Tel: 800-926-6579; Fax: 201-760-3735; e-mail: orders@erlbaum.com; Web site: <http://www.erlbaum.com>: Lawrence Erlbaum Associates.
- Husseinali, G. (2006). Who is studying Arabic and why? A survey of Arabic students' orientations at a major university. *Foreign Language Annals*, 39(3), 395-412.

Lambert, W. E., Gardner, R. C., Barik, H. C., & Tunstall, K. (1963). Attitudinal and cognitive aspects of intensive study of a second language. *The Journal of Abnormal and Social Psychology*, 66(4), 358-368. doi: 10.1037/h0047396

Language difficulty ranking. Retrieved from

<http://www.effectivelanguagelearning.com/language-guide/language-difficulty>

Lee, J., & Zhou, M. (2004). In Lee J., Zhou M. (Eds.), *Asian American youth: Culture, identity, and ethnicity*. Great Britain: Routledge.

Liao, L., & Larke, P. J. (2008). The voices of thirteen Chinese and Taiwanese parents sharing views about their children attending Chinese heritage schools access ERIC: FullText. *Online Submission; US-China Education Review*, 5(12), 1-8.

Liu, Y., Wang, M., Perfetti, C. A., Brubaker, B., Wu, S., & MacWhinney, B. (2011). Learning a tonal language by attending to the tone: An in vivo experiment. *Language Learning*, 61(4), 1119-1141.

Mitchell, T. R. (1974). Expectancy models of job satisfaction, occupational preference and effort: A theoretical, methodological, and empirical appraisal. *Psychological Bulletin*, 81(12), 1053-1077. doi: 10.1037/h0037495

Moses, M. S. (2000). Why bilingual education policy is needed: A philosophical response to the critics. *Bilingual Research Journal*, 24(4), 333.

- Nababan, P. W. J. (1974). Language, culture, and language teaching. *RELC Journal*, 5(2), 18-30.
- New Jersey Department of Education. (2009). New Jersey core curriculum content standards for world languages. Retrieved from <http://www.state.nj.us/education/cccs/standards/7/>
- New Jersey Department of Education. (2010). Academic & professional standards. Retrieved from <http://www.state.nj.us/education/aps/info/grad.htm>
- New Jersey Department of Education. (2011a). New Jersey state report card. Retrieved from http://www.wv-p.org/about_us/state_report_card/.
- New Jersey Department of Education. (2011b). Report card narratives. Retrieved from <http://education.state.nj.us/rc/rc10/rcoptions.php?c=21;d=5715;s=020;lt=CD;st=CD>.
- Noels, K. A. (2003). Learning Spanish as a second language: Learners' orientations and perceptions of their teachers' communication style. *Language Learning*, 53, 97-136. doi: 10.1111/1467-9922.53225
- Noels, K. A., Clement, R., & Pelletier, L. G. (2001). Intrinsic, extrinsic, and integrative orientations of French Canadian learners of English. *Canadian Modern Language Review*, 57(3), 424-442.
- Noels, K. A., Pelletier, L. G., Clément, R., & Vallerand, R. J. (2003). Why are you learning a second language? motivational orientations and self-determination theory. *Language Learning*, 53, 33-64. doi: 10.1111/1467-9922.53223

- Noels, K. A., & Pon, G. (1996). Language, identity, and adjustment. *Journal of Language & Social Psychology, 15*(3), 246.
- Phinney, J. S. (1989a). *Ethnic identity in adolescents and adults: A review of research*. access ERIC: FullText. Md: National Institute of Health (DHHS).
- Phinney, J. S. (1989b). Stages of ethnic identity development in minority group adolescents. *Journal of Early Adolescence, 9*(1-2), 34-49.
- Phinney, J. S. (1990). Ethnic identity in adolescents and adults: Review of research. *Psychological Bulletin, 108*(3), 499.
- Portes, A., & Hao, L. (1998). E pluribus Unum: Bilingualism and loss of language in the second generation. *Sociology of Education, 71*(4), 269-294.
- Portes, A., & MacLeod, D. (1996). Educational progress of children of immigrants: The roles of class, ethnicity, and school context. *Sociology of Education, 69*(4), pp. 255-275.
- Portes, A., & Zhou, M. (1994). Should immigrants assimilate? *Public Interest, (116)*, 18-33.
- Pufahl, I., & Rhodes, N. C. (2011a). Foreign language instruction in U.S. schools: Results of a national survey of elementary and secondary schools. *Foreign Language Annals, v44*(n2), 258.
- Pufahl, I., & Rhodes, N. C. (2011b). Foreign language instruction in U.S. schools: Results of a national survey of elementary and secondary schools. *Foreign Language Annals, v44*(n2), 258.

- Pulvermuller, F., & Schumann, J. H. (1994). Neurobiological mechanisms of language acquisition. *Language Learning, 44*(4), 681.
- Ramage, K. M. (1986). *Motivational and attitudinal factors as predictors of persistence in foreign language study (sociopsychological, second language acquisition, affective factors)*. (Doctoral dissertation, Stanford University). Retrieved from <http://search.proquest.com.ezproxy.lib.lehigh.edu/docview/303525353>
- Rhodes, N. C., & Pufahl, I. (2010). *Foreign language teaching in U.S. schools : Results of a national survey*. Washington, D.C: CAL.
- Roth, G., Assor, A., Niemiec, C. P., Ryan, R. M., & Deci, E. L. (2009). The emotional and academic consequences of parental conditional regard: Comparing conditional positive regard, conditional negative regard, and autonomy support as parenting practices. *Developmental Psychology, 45*(4), 1119-1142. doi: 10.1037/a0015272
- Ryan, R. M., & Deci, E. L. (2000a). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68-78. doi: 10.1037/0003-066X.55.1.68
- Ryan, R. M., & Deci, E. L. (2000b). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68-78. doi: 10.1037/0003-066X.55.1.68

Ryan, R. M., & Deci, E. L. (2002). Overview of self-determination theory: An organismic-dialectical perspective. *Handbook of self-determination research*. (pp. 3-33) Rochester, NY, US: University of Rochester Press.

Schumann, J. H. (1997). The neurobiology of affect in language. *Language Learning, A Journal of Research in Language Studies*, v48

Schumann, J. H. (1990). Extending the scope of the Acculturation/Pidginization model to include cognition. *TESOL Quarterly*, 24(4), 667-684.

Schumann, J. H. (2006). Summing up: Some themes in the cognitive neuroscience of second language acquisition. *Language Learning*, 56, 313-319. doi: 10.1111/j.1467-9922.2006.00367.x

Shaaban, K. A., & Ghaith, G. (2000). Student motivation to learn English as a foreign language. *Foreign Language Annals*, 33(6), 632-644.

Sperandio, J. (1998). *Girls' secondary education in contemporary Uganda: Unintended outcomes of well-intentioned policy*. (Doctoral dissertation, The University of Chicago). Retrieved from <http://search.proquest.com.ezproxy.lib.lehigh.edu/docview/304505923>

State board of education adopts new high school graduation requirements. (2004). Retrieved from <http://www.state.nj.us/education/news/2004/0107grad.htm>

- Tremblay, P. F., & Gardner, R. C. (1995). Expanding the motivation construct in language learning. *The Modern Language Journal*, 79(4) 505–518.
doi: 10.1111/j.1540-4781.1995.tb05451.x
- Tennant, J., & Mihic, L. (2004). Integrative motivation: Changes during a year-long intermediate-level language course. *Language Learning*, 54(1), 1-34. doi: 10.1111/j.1467-9922.2004.00247.x
- Urdu, T. C., & Maehr, M. L. (1995). Beyond a two-goal theory of motivation and achievement: A case for social goals. *Review of Educational Research*, 65(3), 213-243.
doi: 10.2307/1170683
- Vroom, V. H. (1964). *Work and motivation* Oxford, England: Wiley.
- Welles, E. B. (2004). Foreign language enrollments in United States institutions of higher education, fall 2002. *Profession*, pp. 128-153.
- Wen, X. (1997). Motivation and language learning with students of Chinese. *Foreign Language Annals*, 30(2), 235-251. doi: 10.1111/j.1944-9720.1997.tb02345.x
- West Windsor-Plainsboro Board of Education. (2010). *WW-P fast facts*. New Jersey: West Windsor-Plainsboro Board of Education. Retrieved from <http://www.ww-p.org/cms/one.aspx?objectId=4302941&contextId=3592907>.
- Wigfield, A. (1994). Expectancy-value theory of achievement motivation: A developmental perspective. *Educational Psychology Review*, 6(1), 49.

- Wigfield, A., & Eccles, J. S. (2000). Expectancy--value theory of achievement motivation. *Contemporary Educational Psychology, 25*(1), 68-81. doi: 10.1006/ceps.1999.1015
- Wu, W. (2005). *The role of form-focused communication activities in complex grammar learning: The case of relative clauses in Chinese*. (Doctoral dissertation, University of Pennsylvania). Retrieved from <http://search.proquest.com.ezproxy.lib.lehigh.edu/docview/305451858>
- Wu, W. (2011). *About WW-P school district's Chinese program*. Unpublished manuscript.
- Xing, Z. J. (2006). *Teaching and learning Chinese as foreign language*. Hong Kong: Hong Kong University Press.
- Yang, C. (2011). *The acquisition of mandarin prosody by American learners of Chinese as a foreign language (CFL)*. Doctoral dissertation, The Ohio State University). Retrieved from <http://search.proquest.com.ezproxy.lib.lehigh.edu/docview/863203226>
- Zhao, H., & Huang, J. (2010). China's policy of Chinese as a foreign language and the use of overseas Confucius institutes. *Educational Research for Policy & Practice, 9*(2), 127-142. doi: 10.1007/s10671-009-9078-1

Appendixes

Appendix A: Student Questionnaire

Replicated from a published study by Wen (1997) with modifications.

I. General Information

1. Give your age in years: _____

2. Indicate your sex: M: _____ F: _____

3. Check your ethnic membership below:

Are you from Chinese background? Yes: _____ No: _____

4. Circle your classification: 9th Grade; 10th Grade; 11th Grade; 12th Grade;

Other (specify): _____

5. What Level are you enrolled in Chinese? (**Please circle**):

Level 1; Level 2; Level 3; Level 4; Level 5; AP Chinese

6. How many years have you been enrolled in Chinese program in America? (**Please circle**):

1 2 3 4 5 6 7 8 9 10 more than 10 years

7. The language(s) you can speak: _____, understand:

_____, read: _____, and write: _____

8. Are you a native Chinese speaker? Yes: _____ No: _____

Following are statements with which some people agree and others disagree.

There are *no right or wrong answers* since many people have different opinions.

Please give your *immediate reactions* to each of the items. On the other hand, please *do not be careless* as it is important that we obtain your true feelings. **Circle** the number of the alternative below the statement which best indicates your feeling in that statement.

II. Motivation Information

I am taking Chinese:

1. so that I will be able to better understand and appreciate Chinese art and literature.

| | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree |
|-------------------|---|---|---|---|---|---|---|----------------|

2. so that I will be able to meet and converse with more and different people.

| | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree |
|-------------------|---|---|---|---|---|---|---|----------------|

3. because I want to learn about other cultures to understand the world better.

| | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree |
|-------------------|---|---|---|---|---|---|---|----------------|

4. because of interest in my own Oriental heritage.

| | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree |
|-------------------|---|---|---|---|---|---|---|----------------|

Non Applicable: (for non-Asian background students).

5. because I feel Chinese is an important language in the economic development of the world.

| | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree |
|-------------------|---|---|---|---|---|---|---|----------------|

6. because it will help me better understand the problems that Chinese speakers face.

| | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree |
|-------------------|---|---|---|---|---|---|---|----------------|

7. because I think it will someday be useful in getting a good job.

| | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree |
|-------------------|---|---|---|---|---|---|---|----------------|

8. because I want to be able to use it with Chinese-speaking friends.

| | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree |
|-------------------|---|---|---|---|---|---|---|----------------|

9. because I want to use Chinese when I travel to a Chinese speaking country.

| | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree |
|-------------------|---|---|---|---|---|---|---|----------------|

10. because I need to study a foreign language as a requirement for my graduation.

| | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree |
|-------------------|---|---|---|---|---|---|---|----------------|

11. because I feel the class is less demanding than other courses.

| | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree |
|-------------------|---|---|---|---|---|---|---|----------------|

12. because I need it for study abroad.

| | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Strongly agree |
|-------------------|---|---|---|---|---|---|---|----------------|

When I learn a foreign language, I expect that:

13. I will

- a. pass on the basis of sheer luck and intelligence.
- b. do just enough work to get along.
- c. try to learn the language.
- d. enjoy doing all the work.

14. I will think about the words and ideas which I have learned in my classes:

- a. hardly ever.
- b. once or twice per week.
- c. several times during the week.
- d. daily.

15. I will spend about the following amount of time to practice the language after class:

- a. zero hours.
- b. one hour per week.
- c. four hours per week.
- d. more than six hours per week.

16. I will:

- a. not necessarily be active in speaking the language in class.
- b. answer the questions when I am called.
- c. volunteer answers to the questions which are easy.
- d. volunteer answers as much as possible.

17. After I get my Chinese assignments back, I will:

- a. just throw them in my desk and forget them.
- b. look them over but not bother correcting mistakes.
- c. correct mistakes when I have time.
- d. always rewrite them, correcting my mistakes.

18. I will try to speak Chinese after class:

- a. never.
- b. when I have to.
- c. when I am offered the opportunity to do so.
- d. in a wide variety of situations and as much as possible.

III. Information on Learning Outcomes: Valency, Expectancy, and Ability

How significant are these **outcomes** from your Chinese class to you? **Circle** the number which best indicates your feeling in that statement.

1. To speak Chinese fairly fluently.

| | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|------------------|
| Very insignificant | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very significant |
|--------------------|---|---|---|---|---|---|---|------------------|

2. To communicate with Chinese speakers in basic Chinese language.

| | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|------------------|
| Very insignificant | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very significant |
|--------------------|---|---|---|---|---|---|---|------------------|

3. To develop reading comprehension of Chinese.

| | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|------------------|
| Very insignificant | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very significant |
|--------------------|---|---|---|---|---|---|---|------------------|

4. To receive the grade of "A" from the class.

| | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|------------------|
| Very insignificant | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very significant |
|--------------------|---|---|---|---|---|---|---|------------------|

5. To better understand Chinese people and their way of thinking.

| | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|------------------|
| Very insignificant | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very significant |
|--------------------|---|---|---|---|---|---|---|------------------|

6. To learn more about Chinese culture and customs.

No probability 100% probability
0 10 20 30 40 50 60 70 80 90 100

What do you think of your own **ability** to achieve the above outcomes? **Circle** your estimated ability for each outcome.

1. To speak Chinese fairly fluently.

Very low ability Very high ability
0 10 20 30 40 50 60 70 80 90 100

2. To communicate with Chinese speakers in basic Chinese language.

Very low ability Very high ability
0 10 20 30 40 50 60 70 80 90 100

3. To develop reading comprehension of the Chinese language.

Very low ability Very high ability
0 10 20 30 40 50 60 70 80 90 100

4. To receive the grade of “A” from the class.

Very low ability Very high ability
0 10 20 30 40 50 60 70 80 90 100

5. To better understand Chinese people and their way of thinking.

Very low ability Very high ability
0 10 20 30 40 50 60 70 80 90 100

6. To learn more about Chinese culture and customs.

Very low ability

Very high ability

0 10 20 30 40 50 60 70 80 90 100

IV. Open-ended questions:

1. If you could choose again, would you still want to choose Chinese? Why or why not?

2. What is the most important factor that keeps your interest in learning Chinese?

Appendix B: Open-Ended Interview Guide for Focus Group Interviews

The questions below are developed based on the themes and patterns emerged from the survey findings.

1. According to the survey, non-Chinese background students would most likely to continue in the Chinese program significantly longer than Chinese background students if other factors were being controlled. What do you think of this result?
2. Many of you mentioned that Chinese is an interesting language to learn. In what way is it interesting? What aspects of learning Chinese are most appealing to you?
3. Why do students continue to learn Chinese after meeting the high school world language graduation requirement? What helps maintain their learning interest?
4. Students mentioned that they enjoy the challenge that comes with learning Chinese. Why do they enjoy this challenge?
5. What are the differences between Chinese and non-Chinese background students in terms of their motivations for learning Chinese?

Appendix C: Open-Ended Interview Guide for Individual Teacher Interviews

The researcher asked the same questions with slight modifications to allow comparison of responses between the teachers and student focus group discussions.

1. According to the survey, non-Chinese background students will most likely to stay in the Chinese program significantly longer than Chinese background students if other factors are equal. What do you think of this result?
2. Many students mentioned that Chinese is an interesting language to learn. In what way is it interesting? What aspects of learning Chinese are most appealing to your students?
3. Why do students continue to learn Chinese after meeting the high school world language graduation requirement? What helps maintain their learning interest?
4. Students mentioned that they enjoy the challenge that comes with learning Chinese. Why do they enjoy this challenge?
5. What are the differences between Chinese and non-Chinese background students in terms of their motivations for learning Chinese?
6. Do you agree with the language globalization hypothesis, which suggests if a language has obtained a world language status, people will be interested in learning it, no matter how difficult this language may be?

Appendix D: Consent Form

What Motivates U.S. High School Students to Choose to Learn Chinese

Dear student parents:

Your child is invited to be in a research study of what motivates high school students to choose to learn Chinese and what maintains their interest in learning Chinese. Your child was selected as a possible participant because he or she is learning Chinese. We ask that you read this form and ask any questions you may have before agreeing to let your child participate in the study.

This study is being conducted by: Suihua Zhao, WW-P Chinese bilingual teacher and a doctoral degree candidate of International Educational Leadership under the direction of Dr. Jill Sperandio at Lehigh University.

Purpose of the study

The purpose of this study is:

To find out why U.S. high school students choose to learn Chinese and what keeps their interest in learning Chinese.

Procedures

If you agree to let your child participate in this study, we would ask your child to do the following things.

Your child may choose to participate in both activities and one of the two activities:

1. Complete a 10-minute survey in the Chinese class. Students will not enter their names on the survey.
2. Participate in a one-hour focus group discussion after school. The discussions will be audio taped and the students' names will not be recorded or used.

Risks and Benefits of being in the study

Possible risks:

Risks are minimal as surveys and focus group discussions will be anonymous.

The benefits to participation are:

Your child will help teachers and school leaders understand what motivates them to learn and what maintains their learning interest. This will contribute to the teacher training, improvement of Chinese language teaching and world language curriculum development.

Compensation

There will be no compensation. Snacks will be provided to focus group participants after school.

Confidentiality

The records of this study will be kept private. In any sort of report we might publish, we will not include any information that will make it possible to identify a subject. Research records will be stored securely and only my dissertation committee chairperson and I, the researcher, will have access to the records. The transcripts of the focus group discussion tape recordings will remain in the direct physical possession of me. Recordings will be destroyed upon acceptance of the dissertation.

Voluntary Nature of the Study

Participation in this study is voluntary:

Your decision whether or not to let your child participate will not affect your current or future relations with the Lehigh University. If you decide to let your child participate, your child is free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions

The researcher conducting this study is: Ms. Suihua Zhao.

You may ask any questions you have now. If you have questions later, **you are encouraged** to contact Ms. Zhao at West Windsor-Plainsboro High School South, 609-716-5050 (email: Susie.zhao@ww-p.org) or her advisor Dr. Jill Sperandio, at 610-758-3392 (email: jis204@lehigh.edu).

Questions or Concerns:

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), **you are encouraged** to contact Susan E. Disidore at (610)758-3020 (email: sus5@lehigh.edu) or Troy Boni at (610)758-2985 (email: tdb308@lehigh.edu) of Lehigh University's Office of Research and Sponsored Programs. All reports or correspondence will be kept confidential.

You will be given a copy of this information to keep for your records.

Statement of Consent

I have read the above information. I have had the opportunity to ask questions and have my questions answered. I consent to let my child participate in the study. Please circle 1 or both: 1. the survey; 2. focus group discussion.

If I do not circle the above choices or circle both, I mean I consent to let my child participate in both activities.

Signature of Student (If the

student agrees to participate):

Date:

Name of Student (Print):

Signature of Parent/Guardian:

Date:

Signature of Investigator:

Date:

Appendix E: Consent Form

What Motivates U.S. High School Students to Choose to Learn Chinese

Dear Chinese language teachers:

You are invited to be in a research study of what motivates high school students to choose to learn Chinese and what maintains their interest in learning Chinese. You were selected as a possible participant because you are a high school Chinese language teacher. We ask that you read this form and ask any questions you may have before agreeing to participate in the study.

This study is being conducted by: Suihua Zhao, WW-P Chinese bilingual teacher and a doctoral degree candidate of International Educational Leadership at Lehigh University under the direction of Dr. Jill Sperandio at the College of Education, Lehigh University.

Purpose of the study

The purpose of this study is:

To find out why U.S. high school students choose to learn Chinese and what keeps their interest in learning Chinese.

Procedures

If you agree to participate in this study, we would ask you to do the following.

Participate in a one-hour anonymous interview either after school or at a time convenient to you. The interview will be conducted in a location convenient to you and will be audio taped. Your name will be concealed.

Risks and Benefits of being in the study

Possible risks:

Risks are minimal as the interview will be anonymous.

The benefits to participation are:

You will help teachers and school leaders understand what motivates students to learn and what maintains their learning interest. This will contribute to the teacher training, improvement of Chinese language teaching and world language curriculum development.

Compensation

There will be no compensation. Snacks will be provided.

Confidentiality

The records of this study will be kept private and will be used for education research only. In any sort of report we might publish, we will not include any information that will make it possible to identify a subject. Research records will be stored securely and only my dissertation committee chairperson and I, the researcher, will have access to the records. The transcripts of the interview will remain in the direct physical possession of me.

Recordings will be destroyed upon acceptance of the dissertation.

Voluntary Nature of the Study

Participation in this study is voluntary:

Your decision whether or not to participate will not affect your current or future relations with the Lehigh University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions

The researcher conducting this study is: Ms. Suihua Zhao.

You may ask any questions you have now. If you have questions later, **you are encouraged** to contact Ms. Zhao at West Windsor-Plainsboro High School South, 609-716-5050 (email: Susie.zhao@ww-p.org) or her advisor Dr. Jill Sperandio, at 610-758-3392 (email: jjs204@lehigh.edu).

Questions or Concerns:

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), **you are encouraged** to contact Susan E. Disidore at (610)758-3020 (email: sus5@lehigh.edu) or Troy Boni at (610)758-2985 (email: tdb308@lehigh.edu) of Lehigh University's Office of Research and Sponsored Programs. All reports or correspondence will be kept confidential.

You will be given a copy of this information to keep for your records.

Statement of Consent

I have read the above information. I have had the opportunity to ask questions and have my questions answered. I consent to participate in the interview.

| | | | |
|----------------------------|-------|-------|-------|
| Your signature: | _____ | Date: | _____ |
| Your name (Print): | _____ | | _____ |
| Signature of Investigator: | _____ | Date: | _____ |

Vita

Suihua Zhao

8608 Tamarron Drive

Plainsboro, NJ 08536

(609) 897-1394

Email: zhaosuihua@yahoo.com

PERSONAL DATA

| | |
|------------------|--------------------------------|
| Birthplace | Guangzhou, China |
| Names of parents | Mingyang Zhao and Chiduan Yang |

EDUCATION

| | |
|---|------|
| Doctor of Education, Educational Leadership Lehigh University, Bethlehem, PA | 2013 |
| M. Ed, ESL Education The College of New Jersey, Ewing, NJ | 1995 |
| MA, Office Systems Administration The College of New Jersey, Ewing, NJ | 1993 |
| BA, English Literature Zhongshan University, China | 1982 |

HONORS AND GRANTS RECEIVED

Dissertation presented at the 2012 Annual Convention of Chinese Language Teachers Association (CLTA) and American Council on the Teaching of Foreign languages (ACTFL).

New Jersey Governor's Teacher of the Year Award Nominee in 2008.

Selected by National Board for Professional Teaching Standards to validate assessments for ESL national certification, 2000-2003.

WWP Education Foundation grants for bilingual education, 1999, 2000, 2004, and 2008.

McDonald's classroom grant for innovative teaching projects, 1999.

National Endowment for the Humanities research grant, 1998.

For Excellence in Graduate Office Systems Administration Award, School of Business,
Trenton State College (The College of New Jersey), 1993.

PROFESSIONAL EXPERIENCE

| | |
|--|----------------|
| ESL/Chinese Bilingual Teacher West Windsor-Plainsboro High School South, New Jersey | 1994 - present |
| Export Administrator Crest Ultrasonics Corporation, New Jersey | 1993 - 1994 |
| Deputy Manager Guangdong Arts & Crafts Import & Export Corp. Guangzhou, China | 1987 - 1990 |
| Editor and Administrator All-China Youth Federation, Beijing, China | 1982 -1987 |

PUBLICATIONS

Five articles on USA Education, published by *Business Observer*, Beijing, China, 2011.

A Story about My Child, published by *Overseas Chinese Newspaper*, USA, 2008.

Test Yourself, published by *Hubei People's Publishing House*, China, 1987.

Translated The Moon Face by Jack London, published in China, 1982.

