INTRINSIC AND EXTRINSIC MOTIVATIONAL FACTORS THAT INFLUENCE STUDENTS' INTEREST IN CRITICAL LANGUAGES LEARNING

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ABSTRACT

The present study compared and analyzed intrinsic and extrinsic motivational factors that influence students' interest to learn critical language. The study was based on comparison of two intrinsic motivational factors, Interest and Choice, and three extrinsic motivational factors, Effort, Travel goals, and Professional goals, between critical language and commonly taught language learners. The study also examined the role of self-efficacy in learning critical and commonly taught languages. There were 573 students enrolled in Chinese, Japanese, Russian, French, German, and Spanish classes in the spring semester in 2013 who participated in this study. The participants attended five public universities and three liberal arts colleges.

The data was collected using the paper-based survey questionnaire. To analyze the data, the following statistical methods were applied: descriptive statistics, exploratory factor analysis, independent sample *t*-test, one-way ANOVA and Tukey honestly significant test, Pearson product moment correlation coefficient, and path analysis.

The results of the study indicated that extrinsic motivation was stronger for both groups of language learners, critical and commonly taught languages. The findings also proved strong correlation between *Self-efficacy* and the extrinsic construct *Effort* and the intrinsic construct *Interest*.

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CHAPTER 1. INTRODUCTION

The US government has designated a number of languages as critical languages because the national need for trained speakers of those languages exceeds the number of available bilingual speakers. Critical languages include those languages that are "critical" to national security and economic competitiveness. Yet, despite efforts that the US government makes to promote foreign languages, colleges and universities have the ultimate responsibility for improvement of language education. Research on the reasons for the shortage of critical language speakers has attempted to understand the reasons for students' decisions to take, or not take, critical language courses. Motivational theories have tried to explain what influences people to make choices in their lives. It is important for instructors of critical languages to understand what motivates students to take foreign languages in general and then to see if the motivational factors that inspire students to take commonly taught foreign languages are similar to the motivational factors that influence students' decisions to take critical languages. Knowing students' motivations for taking or not taking specific languages can assist policymakers and instructors in dispelling unwarranted misconceptions that may influence a student's self-efficacy and their decisions to pursue training in a critical foreign language. An understanding of motivational factors and student's self-efficacy toward critical language learning will assist in understanding the reasons for shortages of critical language speakers and may contribute to dispelling misconceptions about learning critical languages.

This study investigated what extrinsic and intrinsic motivational factors influence students' interest in learning critical languages, if there are differences in the motivational factors between students taking critical and commonly taught language, and determine if there is a relationship between self-efficacy and motivation factors for learning critical languages.

Critical Languages

"Critical language" is a term used in the United States that defines languages that are in a demand for purposes of national security, diplomacy, trade and peace-making (Ging,1994; Taha, 2010; Conway, 2010). For the purpose of this study, the terms "critical language" and "less commonly taught language" (LCTL) are used interchangeably because researchers use these terms referring to the same issue. Critical languages often differ from English in writing, phonological and grammatical systems. The Education for Economic Security act of 1985 designated 171 languages as critical (Ging, 1994). Depending on economic, strategic and other conditions, the list of critical languages varies. As Ging (1994) noted, in 1994, the Joint National Committee for Languages listed five critical languages: Arabic, Chinese, Korean, Japanese and Russian. Since 2011, the State Department recognized 13 critical languages and began providing fully funded scholarships on a competitive basis for American students. These languages are Arabic, Azerbaijani, Bengali, Chinese, Hindi, Indonesian, Japanese, Korean, Persian, Punjabi, Russian, Turkish, and Urdu.

Though these languages are rarely included in regular foreign language curriculums in American schools, some universities offer intensive summer language courses through the Critical Language Institutes. For example, the Critical Languages Institute at Arizona State University, the Critical Language Institute at North Carolina State University, and the Advanced Critical Language Institute for Russian Immersion at Stony Brook University, all offer language programs funded by the Department of State, the Department of Education, the U.S. Agency for International Development, and the Department of Defense.

For the last few decades, several researchers (Ging, 1994; Robinson, Rivers, & Brecht, 2006; Taha, 2010) have revealed a need for professionals with increased levels of proficiency in various languages for the purposes of trade, diplomacy, and collective security. As a result, in 2006, the Departments of State, Education, and Defense, and the Office of the Director of National Intelligence united their efforts to support the National Security Language Initiative to improve national foreign language capacity in the United States (National Security Language Initiative). They indicated the immediate needs for positive actions to enhance the learning/teaching of "critical languages" as well.

Christian (2007) emphasized "that individuals with high levels of proficiency in certain domains and languages cannot be found when such proficiency is called for" (p. 271). Brecht (2007) argued that despite the efforts that the government makes to promote foreign languages, "the ultimate responsibility for improvement of language education rests with the schools, colleges, and universities that constitute the language education system of this country" (p. 264). Al-Batal (2007), discussing issues related to Arabic programs, pointed out "a gradual but steady decline in the numbers of graduate students entering the fields of Arabic language, literature, and linguistics" (p. 269). Other critical languages programs face the same challenges and, according to Al-Batal (2007), "only a comprehensive agenda for language education will enable us to avoid future crises in other languages as world events unfold" (p. 271).

McGinnis (1994) noted that teachers and learners of less commonly taught languages face problems that differ from those faced by teachers and learners of commonly taught languages have. The problems of LCTL teachers and learners "are twofold: for most LCTLs - a higher requisite amount of language-learning time, and for virtually all LCTLs, a lower available amount of formal language study time" (p. 18). McGinnis (1994) singled out five fundamental

themes in the field of teaching and learning less commonly taught languages. These themes are "the lifelong language-learning career, the goal of expertise, learning and teaching based on culture, the ultimacy of learner responsibility, sensitivity and response to local conditions" (p. 18). The lifelong language-learning career fundamental theme is described as a sincere desire or intellectual thirst for understanding how to communicate and develop an appropriate survival behavior within another culture. Expertise, according to McGinnis (1994), refers to the ability of a learner to successfully participate in a target language culture that "requires the capacity to manipulate that culture as an effective framework for solving problems in communication" (p. 19). Describing the next fundamental theme, learning and teaching based on culture, McGinnis (1994) emphasized that LCTL learners must rely on their own ability to reach higher goals in the target language learning because, first, educational institutions do not offer enough courses in those languages, and, secondly, there is a lack of opportunities for LCTL learners to communicate with native speakers. The main features of the fundamental themes of the ultimacy of learner responsibility are autonomy, self-directedness, and self-efficacy. According to McGinnis (1994), the fundamental theme of sensitivity and response to local conditions refers to "all needs of a given language-learning community, including the learners, the teachers, the administrators, and the resources of the field" (p. 21). Thus, fundamental themes for learning critical and less commonly taught languages encompass the main components of motivation: intrinsic and extrinsic motivational factors and self-efficacy.

Foreign Languages

For decades before the World War I, high schools and universities in the United States witnessed robust enrollment in foreign language classes, where German was the most popular language followed by Latin, French and Spanish. Over 85% of applicants were required to take a

foreign language test before their acceptance to a university (Conway 2010, p. 75). After the beginning of the World War I, the American educational system and political establishment reacted nervously, spontaneously and drastically when it came to learning/teaching of foreign languages faced with the waves of international events. This is what was observed during the First World War when the German language enrollment dropped from 24% in 1915 to 2% in 1917 (Conway, 2010) because of the anti-German sentiments that arose among the American people. Most schools began dropping the teaching of German in 'protest' against the Germans' active participation in the war. Subsequently French and Spanish, to some extent, became more recognized and replaced German as a language of choice. However, in general, the learning/teaching of foreign languages was considered unpatriotic. Conway (2010) noted that "a more ominous trend emerged: by 1920, 22 states had prohibited the teaching of foreign languages, some of them outlawing any such instruction below eighth grade" (p. 75). These laws were overturned by a Supreme Court in 1923 but by that time, the system of foreign language teaching had already been damaged, and as a result, for the next 50 years, foreign languages disappeared in elementary school and were relegated to high school. "Thus, this country had truncated a basic tenet of language education theory - that mastery of a foreign language took a long time and should begin early" (Conway, p. 75).

Instead of reorganizing the educational curriculum to balance all the subjects, including the learning/teaching of foreign languages, a contrary action was taken. "In 1940 a national report on what high schools should teach recommended the elimination of foreign language instruction, among other subjects, because the "overly academic" curriculum in high schools caused too many students to fail" (Conway 2010, p. 75). Forty years later, the damage caused was being felt severely, and in 1980, the President's Commission on Foreign Language and

International Studies highlighted the importance of strengthening foreign languages teaching and learning across all levels (Taha, 2010).

Foreign languages were and still are a controversial subject in the US educational system. On one hand, there are some positive changes in foreign language teaching as Met (2004) emphasized, for example, one-third of elementary schools offer students the opportunity to learn a foreign language, immersion programs have become more popular among secondary and postsecondary students, foreign language teachers apply a content-based approach to teach other subjects in a foreign language to develop and maintain students' interest in learning a foreign language and so forth. On the other hand, other steps are being taken to curb the teaching of foreign languages. For instance, the No Child Left Behind Act of 2001 excluded foreign languages among many other subjects, emphasizing only students' skills in reading and mathematics.

Motivation Theories

Motivation is an important part of the educational system that helps to encourage students to deepen their knowledge in the subject of their interest. In education, motivation can be either intrinsic or extrinsic. Different theories have been developed to explain and explore the effect of intrinsic and extrinsic motivations on students' success during the learning process.

Intrinsic Motivation

Rogers motivational theory, based on humanistic theories, postulates that learners' motivation comes from inside and there is no need for external rewards for a learner to reach a desired goal. As Swaim (1974) noted "this type of learning progresses from natural curiosity, not from drudgery; such learning is relatively easily retained because of close personal connections to the experience of the individual involved" (p. 25). As a result, an intrinsically motivated

learner becomes more open and accepting of others, sets realistic goals for himself, shapes and reshapes his individuality through learning process, and becomes more self-confident and self-directed in the learning process. This type of learning can be described as a pervasive learning that deeply penetrates the individual's life. The consequences of Rogers' theory are that grades, credits, degrees, and even conclusions are not that important, because a learning process has no end; a learner is interested in the learning process itself. According to Rogers' theory, students' personal involvement and the ability of teacher to create the atmosphere of trust determine the effectiveness of the learning process, and teachers together with learners should choose the behavior modes that will lead to the most significant personal meaning. Rogers' theory is grounded on the principles of people's ability to grow constructively, to overcome obstacles and adjust psychologically to new conditions, and to be self-guided and self-controlled.

In learning foreign languages, the principles of Rogers' motivational theory play an important part because very often students are motivated by curiosity and personal interest when they choose what language to learn. Intrinsically motivated students enjoy leaning a different language, culture, and traditions, and find intellectual satisfaction in a process of learning in which the trust in teacher is impossible to overestimate, especially in critical languages learning, when a teacher is often the only or one of a few liaisons with the target language and culture. To reach a higher level of proficiency, critical language learners have to be not only highly motivated but also self-directed, and develop a strong feeling of self-confidence and self-efficacy.

Extrinsic Motivation

As Swaim (1974) emphasized, Skinner's motivational theory, based on principles of theory of human behavior, rejects the idea that learning process should shape an individual.

According to Skinner's theory, the learning process is grounded on the concept of control and requires three factors: a situation where the behavior happens, the behavior itself, and its consequences. Skinner emphasized the importance of control by rewards, which should reinforce students' learning process to reach a desired goal. Skinner's theory supposes that external environmental stimuli change the behavior patterns, and a teacher manipulates the stimuli to have control over changes. As Swain (1974) noted,

> Skinner sees education as an extremely important aspect of our lives, and although his theory includes attention to the individual, the urgency of adopting his scheme is based upon society's needs rather than individual needs. His theory is designed to coordinate social productivity rather than to encourage idiosyncratic development (p. 14).

In contrast to Rogers theory that emphasized that society will benefit from individual self-enhancement, Skinner believed that a cautiously designed society would positively influence individual development and that each individual was the product of social influences. According to Skinner, an individual considers himself in relation to various components of a particular social environment that determine his behavior and that make him directed by and dependent on other people. In the learning process, it is crucial not to lose the main point of the studied subject. When a teacher thoroughly plans all stages and activities of the learning process, learners will smoothly go from one step to another without losing the point or, in other words, interest.

Skinner's motivational theory reflects some of the important principles of second language learning. Learners have to stay focused to fully understand a different culture and language, especially when they completely differ from one's own like most of critical languages. Skinner's idea that individuals adapt to society's needs reflects the idea of students' motivation to learn critical languages. Skinner believed that even a country with a strong stable culture must

realize the necessity of changes when changes will increase its chances to survive. For the same reason, to survive and compete in economic, technological, security, diplomacy and other spheres, the United States identified critical languages to be taught at different levels of education.

Self-determination Theory

Deci, Vallerand, Pelletier, and Ryan (1991) applied self –determination theory (SDT) to explain issues related to intrinsic and extrinsic motivation. They contrasted SDT to other theories that do not answer the question of how to promote motivation and "why certain outcomes are desired. Therefore, they fail to address the issue of the energization of behavior" (p. 327). SDT addresses the energization issue through three innate needs: self-determination, relatedness, and competence. According to the self-determination theory

> competence involves understanding how to attain various external and internal outcomes and being efficacious in performing the requisite actions; relatedness involves developing secure and satisfying connections with others in one's social milieu; and autonomy refers to being self-initiating and self-regulating of one's action. (p. 327)

Deci et al. (1991) emphasized that one of the most important reasons to apply the self-determination theory is that it is based on three innate needs of a human being: competency, relatedness and autonomy. They explained that competency allows meeting various goals being effectual in required actions, relatedness refers to the development of trustworthy social relationships with others, and autonomy involves the ability to regulate one's own behavior and actions. The concept of needs offers a person the opportunity to indicate the exact contextual conditions that enhance motivation, performance, and development. In effect, motivation,

performance, and development will reach the highest level within social environments which offer people the chance to meet their basic requirements for competence, relatedness, and autonomy. The chances of satisfying any of these requirements motivate people to achieve specific goals.

Describing intrinsically and extrinsically motivated behavior as antagonistic and extrinsically motivated behavior as being not self-determined, Deci et al. (1991) pointed out that there are different types of extrinsically motivated behaviors. These types of behaviors, external, introjected, identified and integrated, are grounded in the process of internalization. Deci et al. (1991) characterized internalization as a process through which a person's external motivation is transformed into internal. They believed that a person naturally internalizes non-interesting activities to effectively function in the social environment, and that the social context determines the level of effectiveness of the internalization process

Based on self-determination theory, Ryan and Deci (2000) reviewed and reexamined previous studies on intrinsic and extrinsic motivations. The previous studies were grounded in the basic psychological needs of competence, autonomy, and relatedness, which, according to Ryan and Deci (2000), maintain intrinsic motivation and become more self-determined with respect to extrinsic motivation (p. 54). Although, intrinsic motivation is still an important construct, "extrinsic motivation is argued to vary considerably in its relative autonomy and thus can either reflect external control or true self-regulation" (p. 54). Ryan and Deci (2000) emphasized that motivation in general is not a unitary phenomenon and argued that there are not only different levels of motivation, but also different orientations of motivation. "Orientation of motivation concerns the underlying attitudes and goals that give rise to action - that is, it concerns the why of actions" (p. 54). For example, a student can be motivated either to get a

teacher's approval, or because he or she realizes the value of new skills, or to get good grades or awards. "In these examples the amount of motivation does not necessarily vary, but the nature and focus of the motivation being evidenced certainly does" (p. 55).

Ryan and Deci (2000) indicated four types of extrinsic motivation: (a) external regulation, which refers to external rewards; (b) introjected regulation, which refers to internal regulation that reduces the feeling of pressure and anxiety; (c) identification regulation, which refers to personal acceptance of a new behavior and appreciation of its value, and (d) integrated regulation, which means a full assimilation of indentified regulation and bringing it into congruence with one's own values. Ryan and Deci (2000) pointed out that educators cannot always rely only on intrinsic motivation because not everything that students learn is interesting. For this reason, it is important to understand different types of extrinsic motivation and how to apply them to foster learning.

Self-efficacy

Another important component of academic motivation is self-efficacy, which refers to learners' capabilities of performing a specific activity. Zimmerman (2000) described self-efficacy as learners' judgments about their future potential abilities to perform planned and desired activities. Thus, self-efficacy plays a causal role in learners' academic motivation, which is very important for critical language learners because, as McGinnis (1994) noted, in order to reach a higher level of proficiency, they have to rely on their own ability to master their skills. When learning a foreign language, it is important to be motivated and to demonstrate strong effort to overcome various linguistic and cultural difficulties. According to Bandura (1977), "the stronger the perceived self-efficacy, the more active the efforts" (p. 194). Bembennuty (2011) argued that students with high self-efficacy and intrinsic interest had a proactive approach to

completing the assignments. The research showed that self-efficacy is a critical factor for students' performance, and a positive correlation between self-efficacy and oral, writing and reading skills (Huang, 2008; Prat-Sala & Redford, 2010; Bullock-Yowell, Peterson, Wright, Reardon, & Mohn, 2011) is very important for foreign language learning.

Purpose of the Study and Research Questions

The purpose of this study is to determine how intrinsic and extrinsic motivational factors influence interests in learning critical and commonly taught languages. Furthermore, the study will define the role of self-efficacy in learning critical and commonly taught languages

The specific research questions are as follows:

1. What intrinsic or extrinsic motivational factors most influence a students' interest to learn critical languages?
2. Are there differences in intrinsic and extrinsic motivational factors between students taking critical and commonly taught language?
3. Is there a relationship between self-efficacy and motivation factors for learning critical languages?

Theoretical Framework

This quantitative study on self-efficacy and intrinsic and extrinsic motivational factors that influence students' interest in learning foreign languages is based on previous research conducted by American as well as European scientists who made important contribution to this field. Various scientists examined different influential aspects of second language learning. The literature has shown that interest and choice are important triggers in developing intrinsic motivation of learning as stated by many researchers and that is why interest and choice are

singled out as intrinsic motivation constructs for this study and are represented in the survey instrument.

- Interest: Schiefele (1991), Hidi and Harachiewicz (2000), Csizer and Dornyei (2005), Csizer and Kormos (2008) studied various aspects of interest: individual and situational interests, cultural and intercultural interest, relationship between cultural interest and self-confidence and attitude. Their studies showed the importance of all these aspects on the development of students' motivation to learn foreign languages.
- Choice: Ryan et al. (2000), Brown (2002), Alexander et al (2011) considered choice as one of the measurements of intrinsic motivation, and pointed out the role of understanding resources and the practical application of knowledge and skills received in order to make a wise choice. They emphasized that students' academic choice is greatly influenced by their interest.

Extrinsic motivational factors such as goals, attitude, and effort help to strengthen learners' involvement in the learning process and deepen their knowledge in the chosen field of study.

- Goals: Hidi and Harackiewicz (2000) and Schunk (1991) discussed the influence of mastery and performance goals on academic motivation. They emphasized that only attractive and realistic goals can motivate people to act.
- Attitude: Taha (2010), Huang (2008), Csizer and Dornyei (2005) noted that attitudes toward the language community, native speakers and the language itself are important factors in the learning process. These factors enable creation of a positive attitude and tolerance and understanding of cultural, religious, and societal differences.

- Efforts: Csizer and Dornyei (2005) Schunk (1991) considered effort as one of criterion measures to examine motivational factors that determine direction and magnitude of motivated human behavior.

Self-efficacy: self-efficacy is also determined as a construct of this study. Bandura (1977), Huang (2008), Lane, Lane and Kyprianou (2004), and Brandy-Amoon and Fuertes (2011) in their studies of self-efficacy pointed out that it positively influences students' academic motivation. Huang (2008) stressed the importance of self-efficacy for foreign language learning and showed a positive correlation between self-efficacy and oral skills.

The reviewed literature showed that intrinsic and extrinsic motivational factors and self-efficacy have a significant impact on students' motivation in the learning process. In order to improve enrollment in critical languages, it is crucial to understand what factors have a greater influence. However, the above-mentioned researchers emphasized that all these constructs are interrelated. Bandura (1977) and Bandura and Cevone (1983), for example, analyzed the correlation between self-efficacy, effort, feedback, goals setting and learning outcomes. Alexander et al (2011) studied the interconnectedness of interest, goals, and self-efficacy. Huang (2008) emphasized the importance of interest, effort and feedback for establishing positive

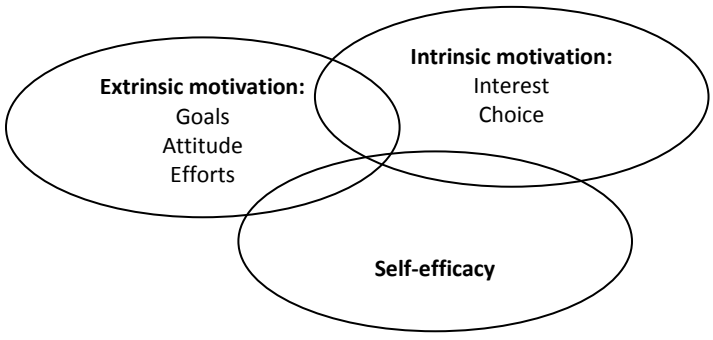

Figure 1. Intrinsic and extrinsic motivational factors and self-efficacy in students' motivation to learn a second language.

attitude. Figure I graphically represents the continuousness and indissolubility of self-efficacy and extrinsic and intrinsic motivational factors on which the current study is grounded.

Significance of the Study

This research seeks to contribute to the field of critical languages studies at American institutions of higher education. Most of the studies on foreign languages investigate issues related to commonly taught languages, and only few focus on issues related to critical languages. This research will add knowledge to the topic of critical language studies and contribute to the foundation for further research in this area of study.

Definition of Terms

The following definitions bring clarity and understanding of terms used throughout the study.

Commonly taught languages: For the purpose of this study, the term commonly taught languages means Spanish, French and German.

CommonTL: Commonly taught language.

Critical languages: For the purpose of this study, the term 'critical languages' means that the United States does not have strong relationship with the countries in which these languages are spoken. This means that there is a shortage of professionals who speak these languages and understand the culture of the countries where these languages are spoken, which is important to create mutually fruitful relationships with these countries in the future.

CriticalL: critical language.

Intrinsic and extrinsic motivation: Ryan, and Deci (2000) "distinguish between different types of motivation based on the different reasons or goals that give rise to an action. The most basic distinction is between *intrinsic motivation*, which refers to doing something because it is

inherently interesting or enjoyable, and *extrinsic motivation*, which refers to doing something because it leads to a separable outcome" (p. 55).

L2: For the purpose of this study L2 means a foreign/second language that students learn.

LCTL: Less commonly taught languages. For the purpose of this study this term is used interchangeably with the term *critical languages*.

Self-efficacy: Defining self-efficacy, Bandura (2003) noted that "among the mechanisms of human agency, none is more central or pervasive than beliefs of personal efficacy. Whatever other factors serve as guides and motivators, they are rooted in the core belief that one has the power to produce desired effects; otherwise one has little incentive to act or to persevere in the face of difficulties. Self-efficacy beliefs regulate human functioning through cognitive, motivational, affective, and decisional processes. They affect whether individuals think in self-enhancing or self-debilitating ways, how well they motivate themselves and persevere in the face of difficulties, the quality of their emotional well-being and their vulnerability to stress and depression, and the choices they make at important decisional points" (p.87).

Target country: For the purpose of this study, the term 'target country' means the country where the studies language is spoken.

Target language: For the purpose of this study, the term 'target language' means the studied language.

Limitations of the Study

In this study the participants are not randomly selected, but represent a sample of convenience. The participants are enrolled in educational institutions in only two states: four educational institutions in North Dakota and one educational institution in Minnesota. This study will focus on four out of thirteen critical languages, Arabic, Chinese, Japanese, and Russian.

Findings of this study may not be generalizable to other regions of the US or other critical languages. To generalize the results, a larger sample from more states and representing more critical languages learners will be necessary.

Organization of the Remainder of the Study

Chapter II contains a review of the literature and research related to the problems of this study: intrinsic and extrinsic motivation, and correlation between self-efficacy and motivation factors of learning critical languages,

Chapter III presents the research methodology: research design, population, sampling procedure, instrumentation, data collection procedure, data analysis techniques of this study.

Chapter IV analyzes and summarizes the data gathered.

Chapter V includes discussions of the research and suggestions for future studies.

CHAPTER 2. LITERATURE REVIEW

Introduction

The purpose of this study is to research, compare, and analyze how intrinsic and extrinsic motivational factors influence students' interest in learning critical and commonly taught languages. Furthermore, the study will examine and compare the role of self-efficacy in learning critical and commonly taught languages.

Student motivation is a key factor to learning that determines what, why and to what extent a student is ready to learn a chosen subject. Motivation was the center point of different studies. This chapter will review previous studies that examined motivational components, such as intrinsic and extrinsic interests, individual and situational interests, social and cultural aspects, feedback, goals, attitude, and self-efficacy as they affect second language learning process.

Intrinsic and Extrinsic Motivation

Lei (2010) analyzed current studies of two types of motivation, intrinsic and extrinsic, and sorted out the benefits and the drawbacks of each of these types of motivation. Among the benefits of intrinsic motivation he indicated persistence in acquiring a deep understanding of the subject matter, a demonstration of creativity in performance, active participation, a negative reaction to stress, frustration and depression, cognitive engagement in the task, and an ability to apply new knowledge to existing knowledge. At the same time, intrinsically motivated students often lose track of time and space, therefore experience a lack of time for other required courses and other favorite activities, they do not follow deadlines, but they do appreciate more the learning process than learning outcomes.

Benefits of extrinsically motivated students include a high level of competition to receive recognition, good grades and tangible rewards, for example. Disadvantages of extrinsically motivated students are low self-esteem, dissatisfaction with life, high levels of stress and depression, and poor ability to establish good relationships with peers and instructors. Lei (2010) emphasized that both intrinsic and extrinsic motivations are integral parts of the learning process and sometimes a student can have different levels of intrinsic and extrinsic motivation.

According to Ryan et al. (2000), intrinsic motivation is a pervasive form of motivation and "refers to doing something because it is inherently interesting or enjoyable" (p. 55). People, by nature, are curious and ready to learn and explore without any external incentives and, as Ryan et al. (2000) emphasized, people's "intrinsically motivated activities were said to be ones for which the reward was in the activity itself" (p. 57). For CTL learners, intrinsic motivation plays an important role. McGinnis (1994) noted that only a few learners chose to study a less commonly taught language "merely to satisfy a foreign language requirement for college admission or a university baccalaureate requirement. They have a genuine desire — or at the least a curiosity—to know what it means to communicate with and within the target culture" (p. 18).

Extrinsic motivation, as opposed to intrinsic motivation, refers to activities people do for its instrumental value. Because extrinsic motivation is not naturally inherited by people, it should be externally prompted, according to Ryan et al. (2000), either by a positive attitude towards the study object by people respected by learners, or by the feeling of competence based on the goals that learners understand, the skills that learners have to reach these goals, the positive feedback and so forth.

However, educators cannot always rely on intrinsic motivation, especially in teaching subjects that are not widely offered in most schools like, for example, critical languages. Extrinsic motivation is therefore important to maintain and further foster students' interest in learning critical languages, in this case. Ryan et al. (2000) emphasized that for successful learning, educators should understand and use characteristics of extrinsic motivation as an essential strategy that allows students to perform extrinsically motivated actions "with an attitude of willingness that reflects an inner acceptance of the value or utility of a task" (p. 55).

Choice as a Component of Motivational Theory

Making a choice in any activity is a not a simple issue. It requires the interplay and mobilization of all the resources available to a person to make the right choice. To what degree or what resources are employed in the process can be a decisive moment in the achievement of the specific goals. The researcher regards choice as one of the components in the selection of study of critical languages.

Ryan et al. (2000) considered choice as one of the measurements of intrinsic motivation and used this measurement to experimentally study the dynamics of intrinsic motivation. They emphasized that students are highly intrinsically motivated when they work on a task without any external reasons such as rewards or teacher's approval.

Brown (2002) said that people who are actively involved in their career choice are usually more satisfied with employers and more efficient in performing their job duties in the future. Brown (2002) emphasized that in order to make a wise choice about a future career path, learners have to understand themselves, their abilities and ambitions, the advantages and disadvantages of the chosen field of study, as well as the resources, limitations and practical application of the knowledge and skills received.

Jonson and Mortimer (2002) analyzed career choice from the socioeconomic and psychological perspectives. They noted that the sociologists focused on the mechanism of intergenerational mobility examining linkage between generations when children chose their father's career path while the psychologists' emphasis was made on interest, values and personality type of an individual as predictor of career choices (p. 38).

Lent, Brown and Hackett (2002) pointed out that Social Cognitive Career Theory is based on the complexity of connections between individuals and their career choice, between personal factors and external influences on career behavior. Interest, attitude, and goal setting were designated as the main components of this theory. They viewed people "as active agents in, or shaper of, their career development". (p. 255). They emphasized the importance of self-direction and a belief in the process of career choice. According to Lent et al. (2002) career choice is often influenced, promoted or inhibited, by various external and internal factors such as social and economic or affective reaction (p. 56).

Alexander et al.(2011), using the Social Cognitive Career Theory, conducted a study on issues related to the reduction of students' enrollment in computer sciences. Comparing students enrolled in computer-oriented and non computer-oriented courses, they found that self-efficacy, advice of parents and other well-respected individuals, goals, and personal interest in the subject are interconnected and have a great impact on students' choice of academic courses. "The impact of self-efficacy on the ultimate choice of career is because it not only contributes directly to goal formation, but to a greater extent contributes to the development of interest" (p. 303). Alexander et al. (2011) identified interest as a main precursor and determinant of career choice and described it as a feeling that triggers curiosity and concern.

Conclusion: based on the literature review, the researcher of the current study decided to consider choice as a motivational factor to investigate how it impacts the study of critical languages. Most theories on occupational choice and development were focused on issues related to women, minorities or career counseling. The literature review revealed that when making a future career choice, people rely on internal factors such as personal interest and ambitions or advice of well respected people, and external factors such as social and economic issues. The researcher has so far not come across any studies related to students' career choice or academic course choice in the field of second language teaching.

Interest as Component of Motivational Theory

Hidi and Harackiewicz (2000) seeking ways to increase academic motivation, focused their study on such specific areas of motivation such as interests and goals. Hidi and Harackiewicz (2000) differentiated individual interest from situational interest. Individual interest is described as a stable motivational orientation that can have a positive impact on feelings and increase knowledge and value of the topic studied. While situational interest caused by stimuli is not always followed by a long-lasting reaction. Hidi and Harackiewicz (2000) noted that there is a lack of research that focuses on how to develop personal interest, which is a powerful determinant of academic motivation. They argued that situational interest enhances academic motivation particularly of students without previous knowledge in the area of study In addition, situational interest can give rise to the development of long-lasting individual interest. As an example, they described a situation when a student excited by a lecture in psychology, may be stimulated to learn more about it, which can trigger the development of individual interest in psychology

Schiefele (1991) delineated two components of individual interest: feeling-related and value-related. Feeling-related interest is associated with involvement and positive attitude, and value-related interest is characterized by attribution of personal significance to a subject area through personal development and appreciation of the importance of the problems. Feeling-related and value-related interests are long-term interests and can be described as intrinsic motivation. Schiefele (1991) examined the relationship among interest, text comprehension, learning strategies, and the quality of experience (p. 302). The results revealed that interest strongly motivated learners to understand the depth of the text context and its main ideas. Later Schiefele conducted another study to investigate the relationship between study interest and use of learning strategies, using for this purpose three scales to assess feeling-related interest, value-related interest, and the intrinsic nature of study-related activities (p. 310). The study showed that interest correlated most strongly with use of elaboration and information-seeking strategies.

Csizer and Dornyei (2005) indicated cultural interest and milieu as integral components of language learning motivation. Csizer and Dornyei (2005) consider cultural interests as "the appreciation of cultural products associated with the particular L2 and conveyed by the media (e.g. films, videos, TV programs, pop music, magazines, and books)" (p. 21). These cultural products play a significant role in introducing language learners to the target language community and thus shaping their attitude to the language.

Csizer and Kormos (2008) explored the differences between the motivational and intercultural contact measures, and determinants of motivated behavior between learners of English and German. The study used a stratified approach and embraced 1777 Hungarian students of English and German. The questionnaire consisted of 71 items. All items, except the last eight open-ended questions, used a five-point rating scale. The main variable groups were (a)

items on target language, (b) items on the direct and indirect aspects of cross-cultural contact, (c) other motivational variables such as linguistic self-confidence, language learning milieu, perceived importance of contact, and motivated learning behavior.

The study revealed two interesting findings. First, "direct contact was found to play a minor role in language learning motivation; it was rather indirect contact and the use of foreign language media that emerged as important contact variables" (p. 32). Second, the learners, Hungarian secondary school students, who participated in this study demonstrated a higher level of instrumental rather than integrative motivation, which indicates that learners "even at a relatively young age are well aware of the possible pragmatic benefits the knowledge of a foreign language might offer in the European context" (p. 36).

Csizer and Kormos (2008) emphasized that intercultural contacts influence learners' attitude toward the target language, native speakers of this language, and the target language culture. Reasons to learn a second language can be different: to communicate with the minorities who do not speak the language of the country where they live or communicate with members of other cultures to learn more about them and develop linguistic competence. Thus, intercultural contacts are described as a means of communication and an outcome of second language learning. In their study, Csizer and Kormos (2008) "operationalised five contact variables: direct spoken contact, direct written contact, indirect contact, media usage and perceived importance of contact" (p. 33). The findings of the study showed that indirect contacts, such as

> perceived importance of contact and foreign media usage contributed a significant and substantial way to students' learning behavior. This underscores the fact that in a foreign language environment the role of direct contact is more important that of indirect contact (p. 40).

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Conclusion: The literature review showed that interest directly impacts second language learners' motivation. For critical language instructors and program designers it is important to understand how to deliberately govern learners' interests and apply situational interest to trigger and maintain personal interest of critical language learners who, in most cases, start learning a chosen critical language at the beginning level. As Hidi and Harackiewicz (2000) also found that personal interest can improve students' academic performance. In the case of teaching critical languages, the researcher observed situations when students who were deeply interested in Russian history and Russian literature decided to learn the Russian language. Understanding the culture of the target language is an integral part of language learning process as Csizer and Dornyei (2005) stated. Nevertheless Csizer and Kormos (2008) demonstrated that indirect contacts sometimes play even more important role than direct contacts. Due to the fact that critical language learners cannot always satisfy their natural curiosity and intrinsically motivated interest about the target language and culture through direct contacts with native speakers, they appreciate information-seeking activities such as reading books, magazines, and newspapers, watching movies, searching the Internet and so forth to find more information to enrich and deepen their knowledge about the target language culture. Thus,

all aspects of interest, personal, situational, and cultural, are important motivation determinants for critical language learners.

Goals and Efforts as Components of Motivation Theory

Hidi and Harackiewicz (2000) considered the importance of goal setting for the purpose of academic motivation. They distinguished two types of goals that "represent contrasting patterns of motivational processes" (p. 160): mastery goals and performance goals. Mastery goals orient people to better understand the importance of their work and new skills that in turn augment their competency level, while performance goals enable people to positively evaluate their ability and reduce negative influence, which helps them to successfully compete and outperform others considering their abilities rather than efforts. Hidi and Harackiewics (2000) reviewed various studies and pointed out that some learners may have both mastery and performance goals while others may have neither. Hidi and Harackiewics (2000) emphasized the interconnectedness of mastery and performance goals concluding that one's mastery goal directly affects performance goals.

Schunk (1991) used expectancy value theories to argue the importance of goal setting for students' academic motivation. According to expectancy-value theories, a behavior is a combination of people's expectations of specific outcomes and the value level of these outcomes. Expectancy-value theories are grounded on the assumptions that only realistic and attractive goals motivate people to action. These assumptions can equally be applied to critical language learning because some critical language learners are motivated by the uniqueness of the language and its culture while others are motivated by the possibility to apply the knowledge of the critical language in real life either for communication with family members and friends or with colleagues in social and business settings.

Based on self-efficacy theory, Schunk (1991) pointed out the relationships between goals, efforts, and feedback. Schunk (1991) argued that goals setting, efforts directed to positive outcomes and situational factors such as rewards and instructor's feedback affect students' performance and motivation. These factors indicate to students their progress in the learning process. "Motivation is enhanced when students perceive they are making progress in learning. In turn, as students work on tasks and become more skillful, they maintain a sense of self-efficacy for performing well" (p. 209). He emphasized that people with high sense of efficacy make greater efforts, "work harder and persist longer when they encounter difficulties than those who doubt their capabilities" (p. 208).

In their study Csizer and Dornyei (2005) explored motivational factors using two criterion measures, (a) the student's language choice and (b) the amount of efforts that students are willing to devote to their language learning. They singled out these two criterion measures as main concepts of motivational research because they are associated with direction and magnitude of motivated human behavior. Csizer and Kormos (2008) emphasized that the level of energy and effort the learners are prepared to put into second language learning can be influenced by intercultural contacts.

Deci et al. (1991) indicated that performance feedback supports learners' competence and facilitates their motivation. They specified that positive feedback fosters perceived competence, while negative feedback decreases perceived competence lessening learners' desire to move forward in the learning process and diminishing intrinsic motivation in general.

Conclusion: For critical language learning efforts, goals and feedback are important motivational factors. Critical language learners have to overcome many barriers to achieve substantial progress. These barriers can be a non-Latin alphabet, a different, sometimes radically

different, culture, a lack of communication with native speakers and so forth. In such situations, critical language learners have to be very enthusiastic and put a lot of personal effort to succeed in the learning process and achieve established goals. In the learning process, intrinsic motivation can change into extrinsic motivation and intrinsically motivated critical language learners can see the opportunities to apply their new knowledge and skills in practical way: traveling to countries where a target language is spoken, finding a job requiring knowledge of the critical language, further education in the field of the critical language and so forth. The established goals enable learners to realize the importance of their work, rationally evaluate the progress and maintain a high level of competence. In critical language learning, instructors are often the only authorities who can indicate the progress and evaluate the level of learners' competence. Thus, their opinion and feedback are very important for critical language learners and represent a strong motivational factor.

Attitude as a Component of Motivation Theory

Taha (2010) conducted the study consisting of 34 international graduate students and 108 American undergraduate students enrolled in seven Spanish and French classes at a historically Black University. The participants completed the questionnaire that included three sections: (a) background information; (b) multiple choice questions about learning Arabic; (c) agreement/disagreement statements on integrative and instrumental motivation for learning Arabic based on a 5-point Likert scale (p.153).

After conducting studies, Taha (2010) argued that besides motivation, another variable, attitude, is important in the learning process, and particularly in the foreign language learning. He noted that the difference between motivation and attitude has not been clearly explained yet.

In second language teaching, motivation is usually associated with both learners' efforts and willingness to reach the goal of mastering second language skills and attitude (p.152).

Taha (2010) analyzed intrinsic and extrinsic motivation for foreign language learning, Arabic in particular, and demonstrated that the attitude and motivation of students taking Arabic, is mainly for utilitarian purposes: over 60% of the study participant wanted to use the language for traveling, approximately 30% of the participants considered using Arabic for future careers. At the same time, over 80% considered it as a cultural and linguistic asset (p. 158). The study also showed that most American students believe that Arabic language programs should not be expanded, while most of international students thought that Arabic language programs should be strengthened.

Csizer and Dornyei (2005) noted that motivation relates to learning outcomes, but indirectly. "In other words, motivation is a concept that explains why people behave as they do rather than how successful their behavior will be" (p. 20). In addition to motivation, other factors such as the learners' ability, learning opportunities, the quality of instructionamong others, also contribute to the motivation-outcome relationship.

Csizer and Dornyei (2005) emphasized the attitude toward the target language community as the main factor associated in their study "with attitudes toward meeting L2 speakers and traveling to their country, that is, attitude toward having direct contact with them" (p. 21). The study showed that integrativeness followed by instrumentality is "the key component in the generalized motivational disposition of language learners" (p. 28). Csizer and Dornyei (2005) argued that, in an environment where there is a lack of opportunity to directly communicate with native speakers, the relationship between self-confidence and attitude toward the target language speakers is determined by cultural interest.

Anderson and Suleiman (2009) examined students' motivation to learn Arabic in the United Kingdom. They emphasized that students' motivation is connected with the personal, religious or political orientation of learners. Discussions of integrative and instrumental motivations led to consideration of other issues: such as should spoken dialects of Arabic or formal Arabic be taught; should students focus more on culture, literature, and religious texts or the language itself.

Anderson and Suleiman (2009) also discussed the perspectives of Japanese, Chinese, and Arabic teachers and addressed the question of why these languages are considered difficult to teach and to learn. The scope and level of perception of each language rank from unusual vocabulary to the range of difficulties caused by diglossia. Finally, what makes a language difficult is not only inherent in the language itself but also in its unusual difference from one's native language. This difference can be either structural or cultural. (p. 127)

Anderson and Suleiman (2009) pointed out the increasing interest for Arabic among high school students and the implications of this interest for language departments at universities. Military school instructors "added a military perspective to these issues, describing their own purposes for teaching Arabic and the methodologies and assessment framework that they used" (pp. 126 - 127).

Anderson and Suleiman (2009) discussed Manchester University students' survey on reasons for studying Arabic and four sets of students' orientations. For the first type of orientation, individual, the study revealed five of the most popular reasons for learning Arabic: social/personal; religious; understanding of Arab culture; career; and academic purposes (p. 127). It was stressed, however, that the results can be different depending on the participants' background. The second type of orientation is institutional. The issue discussed was to apply an

intrinsic motivation approach and teach classical Arabic texts or an extrinsic motivation approach and offer an intensive training in the spoken language as the Foreign Office or Ministry of Defense do. The third type is the orientation toward Arabic language linguists. This orientation concerns other people's attitude towards students studying Arabic. Some of the issues of learning Arabic in Arabic speaking countries were discussed. The fourth is the orientation of students towards Arabs. It concerns methodologies and approaches to teach Arabic used in schools in various countries.

Anderson and Suleiman (2009) highlighted the dual nature of language as a bearer of both public culture and private information. As a bearer of public culture, language was potentially integrative; as a bearer of private or secret information, it was a tool that could be instrumentalised. (p. 130)

Huang (2008) noted that second language learning is considered a social behavior and interaction with target culture and language representatives is a natural part of the language learning. For critical language learners, it is important to develop a positive attitude toward the target language culture that includes a positive attitude toward the language itself, native speakers or people speaking the target language, and a positive attitude toward and acceptance or at least tolerance and understanding of cultural, religious and societal differences. Developing and fostering a positive attitude toward a critical language culture is a long process, because critical language learners cognize it gradually starting with the alphabet. Genuine interest, clear and attainable goals, personal efforts and encouraging feedback play an important role in this process, and, in turn, when a positive attitude is established learners will be ready to put more effort and work toward reaching more complicated goals with a higher level of competence.

Self-efficacy

Bandura (1977) discussed how different modes of treatment change the level and strength of self-efficacy, and the four main sources of information of personal efficacy: "performance accomplishments, vicarious experience, verbal persuasion, and physiological states" (p. 191). Bandura (1977) emphasized that human behavior is defined by cognitive processes and "it is performance-based procedures that are proving to be most powerful for effecting psychological changes" (p. 191). The existing disagreement of theory and practice can be regulated by recognizing the fact "that cognitive processes mediate change but cognitive events are induced and altered most readily by experience of mastery arising from effective performance" (p. 191). Bandura (1977) argued that cognitive activities serve as a base for motivation that has two primary cognitive sources: "the capacity to represent future consequences in thought" and "the intervening influences of goal setting and self-evaluative reactions" (p.193).

Bandura (1977) claimed that psychological procedures, the main assumptions of the social cognitive theory, create and strengthen expectations of personal efficacy, and distinguished efficacy expectations and response-outcome expectations. According to Bandura, an outcome expectancy is a person's conviction that a certain behavior can lead to desired outcomes; and an efficacy expectation is the belief that a person can successfully perform certain activities and maintain a certain behavior necessary to produce the desired outcomes. Bandura (1977) differentiated outcome expectancy and efficacy expectations because a person can believe that some specific actions will allow him to get certain outcomes.

Bandura (1977) noted that initiation and persistence of coping behavior are influenced by expectations of personal mastery. At the initial level, according to Bandura (1977), perceived efficacy affects the choice of activities and coping efforts. "Efficacy expectations determine how

much effort people will expend and how long they will persist in the face of obstacles and aversive experiences. The stronger the perceived self-efficacy, the more active the efforts" (p. 194).

Bandura (1977) defined three dimensions of efficacy expectations: magnitude, generality, and strength. Further in the article, Bandura (1977) discussed four sources of information, performance accomplishments, vicarious experience, verbal persuasion, and physiological states, on which expectations of personal efficacy were grounded. Performance accomplishments, based on personal mastery experiences, are considered the most influential source of information. Bandura (1977) studied environmental events information and information processed by individuals, pointing out that "the impact of information on efficacy expectations will depend on how it is cognitively appraised. A number of contextual factors, including the social, situational, and temporal circumstances under which events occur, enter into such appraisals" (p. 200).

Bandura and Cevrone (1983) stated that self-efficacy is a central part of self-motivation because based on self-percept of efficacy, people decide what to do and how much effort they are ready to mobilize to perform activities. A low sense of self-efficacy hinders learners' success, while a high sense of self-efficacy helps them to overcome obstacles and reach the goal. Self-efficacy positively influences motivation only when goals and feedback information are in place. However, "simply adopting goals, whether easy or personally challenging ones, without knowing how one is doing seems to have no appreciable motivational effects" (p. 1018). The study showed that (a) the participants who had goals and feedback doubled their performance compared to the participants who had either the goal alone, feedback alone, or neither of them (p. 1021); (b) explicit goals are more motivating than general goals (p. 1025); and (c) the goal systems influence performance motivation partially through self-efficacy mechanism (1026).

Bembennuty (2011) examined the role of self-efficacy and self-regulation for successful homework completion. The participants of the study were students of a public technical 2-year college. Bembennuty (2011) argued that students with high self-efficacy and intrinsic interest had a proactive approach to completing the homework. Bembennuty (2011) cited Zimmerman and Kitsantas (2005) who examined the mediational role of self-efficacy for learning and found that homework completion and self-efficacy can predict student GPA (p. 457).

Bembennuty (2011) examined and described maladaptive students' homework behavior and the ineffective strategies learners use to protect themselves from giving an unwanted impression to their professors, parents and classmates and in order to maintain keep a high level of self-esteem. These maladaptive behaviors are self-handicapping, procrastination, defensive pessimism, defective academic delay of gratification, misregulation, underregulation, iConnected parents, and maladaptive echo generation. Bembennuty noted that "homework can be conceptualized as a selfregulatory process related to self-efficacy as a motivational belief associated with academic achievement (p. 469)".

Brady-Amoon and Fuertes (2011) studied the relationships between people's beliefs about their ability, adjustment and performance. To do so, they conducted research to examine how self-efficacy and self-rated ability relate to each other. Their research is founded on Bandura's definition of self-efficacy "as an individual's belief that he or she is able to accomplish a task or reach a future goal, is considered a primary determinant of people's interest, choices, actions, behavior, and performance" (Bandura, 1977).

The results indicated a significant positive relationship between self-efficacy and self-rated abilities, and the effect of self-efficacy and self-rated abilities on adjustment. Brady-Amoon and Fuertes (2011) characterized adjustment as the interactive relationship between students and

the college environment that afford the understanding of the extent of students' persistence and devotion to career success.

Schunk (1991) reviewed previously conducted studies on self-efficacy and motivation and grouped them around two variables: "person variables (goal setting and information processing) and situation variables (models, attributional feedback and rewards)" (p. 208). Schunk (1991) pointed out that according to self-efficacy theory, people acquire information from their personal and others' accomplishments and experiences to appraise efficacy. Schunk (1991) characterized efficacy as

> an inferential process in which persons weigh and combine the contributions of such personal and situational factors as their perceived ability, the difficulty of the task, amount of effort expanded, amount of external assistance received, number and patterns of successes and failures, their perceived similarity to models, and their persuader credibility. (p. 209)

Schunk (1991) examined academic motivation in terms of self-efficacy discussing how self-efficacy operates during the learning process. At the initial stage of the learning process, students estimated differently their ability to acquire knowledge depending on such factors as attitude, prior experience, capability to master the material, goal setting, teacher feedback, and so forth. These factors enabled students to see how they were succeeding and assessing efficacy for furthering learning process. Schunk (1991) expressed a strong belief that motivation was increased when students perceived their progress in learning, which enabled them to maintain a sense of confidence that they were becoming more skillful and a sense of self-efficacy that they can perform well and achieve the expected goals. The motivational advantages of goals are discussed in terms of proximity, specificity, and difficulty. According to Schunk (1991)

proximal goals as opposed to distant goals enhance self-efficacy and motivation because students can see and evaluate the progress process themselves. When proximal goals incorporate certain performance standards they strengthen a sense of self-efficacy and motivation even more. The difficulty level of goals can differ for different stages of the learning process: easier goals promote better self-efficacy and motivation at early stages, while more difficult goals are usually more effective later during the learning process when students demonstrate their capability to be successful. Self-efficacy is also compared with several resembling constructs: "perceived control, outcome expectations, perceived value of outcomes, attributions, and self-concept" (p. 207).

Schunk (1991) noted the importance of further research on the transfer of self-efficacy and motivation, where transfer is the maintenance of self-efficacy and motivation over time, and what self-efficacy contributes to transfer. Schunk believed that "in the area of cognitive skill learning, we might expect some transfer of self-efficacy from one domain to another" (p. 223).

Prat-Sala and Redford (2010) conducted research to examine motivation, self-efficacy, and approaches to studying. Prat-Sala and Redford (2010) argued that various approaches used in the study, deep-level, surface-level and strategic approaches, are intrinsically as well as extrinsically motivated, and relate to different components of intrinsic and extrinsic motivations. Their research determined that 'challenge' is the strongest predictor for the deep and surface approaches, and 'compensation' is the strongest predictor for the strategic one. The study also revealed positive correlation between deep and strategic approaches and self-efficacy in reading and writing, which means that students using these approaches have a higher level of belief that they will to successfully fulfill written requirements and obtain more knowledge by reading literature in the studied area.

Lane, Lane, and Kyprianou (2004) studied the relationships between self-efficacy, self-esteem, previous performance accomplishments and academic performance. The study addressed three dimensions of self-efficacy: "one labeled *self-efficacy to maintain motivation in the light of difficulties you might meet*, and second, *self-efficacy to cope with intellectual demands of the program*, and third, *self-efficacy to gain at least a pass in the end-of-semester assessments*" (p. 253). Lane et al. (2004) argued that the mentioned self-efficacy measures enable to improved confidence to achieve outcomes and behaviors related to the entire course content. The students were asked to judge their own self-efficacy toward subjects new to them.

Lane et al. (2004) compared and contrasted self-efficacy and self-esteem as different constructs. "Self-efficacy questions are concerned with capabilities to execute specific tasks, or courses of action, the outcomes of which may or may not have any bearing on self-esteem" (p. 249). The study demonstrated a significant positive correlation between perceived academic success and high levels of self-esteem and all three self-efficacy measures, class of degree, attribution to ability and attribution to effort. The findings of the study supported Bandura's position of self-efficacy deriving from the cognitive appraisal of previous performance. "The findings concur with the predictive power of self-efficacy in terms of explaining an individual's behaviors and actions" (p. 255).

Bullock-Yowell, Peterson, Wright, Reardon, and Mohn (2011) conducted research founded on Holland's six interest domains: investigative, artistic, social, realistic, enterprising, and conventional. Bullock-Yowell et al. (2011) used self-efficacy, self-estimates, and self-competencies to prove that it is not necessary to separately measure self-efficacy when measuring interests in career counseling using the Self-Directed Search (SDS) instrument, and

provided strong support for the first three interest domains. The study also proved that self-efficacy, self-estimates, and self-competencies highly correlate in all six interest domains.

CHAPTER 3. METHODOLOGY AND PROCEDURES

Introduction

The purpose of this study was to research, compare, and analyze how intrinsic and extrinsic motivational factors influence interests in learning critical and commonly taught languages. Furthermore, the study examined and compared the role of self-efficacy in learning critical and commonly taught languages.

The specific research questions were as follows:

1. What intrinsic and extrinsic motivational factors most influence students' interest to learn critical languages?
2. Are there differences in intrinsic and extrinsic motivational factors between critical and commonly taught language students?
3. Is there a relationship between self-efficacy and intrinsic and extrinsic motivational factors for learning critical languages?

Chapter III includes a description of the population and sample, and the instrumentation. This chapter discusses procedures of data collection and data analysis.

Population and Sample

The study population included students taking critical and commonly taught languages at five public educational institutions, North Dakota State University (NDSU), University of North Dakota (UND), Minnesota State University of Moorhead (MSUM), Winona State University (WSU), St. Cloud State University (SCSU) and three private liberal arts colleges, Concordia College, St. Olaf College and Macalester College (Table 1). The participating educational institutions are located in two states: North Dakota and Minnesota. Study participants were

students currently enrolled in the first four semesters of second language courses indicated above.

Table 1

Number of participants by institution and language (n=573)

	Critical languages			Commonly taught languages		
	Chinese	Japanese	Russian	Spanish	German	French
NDSU	-	-	-	43	29	38
UND	-	-	15	-	-	-
MSUM	3	24	-	43	-	-
WSU	26	-	-	-	-	-
SCSU	6	15	13	-	-	-
Concordia	28	-	-	93	24	30
Macalester	41	44	19	-	-	-
St. Olaf	-	-	39	-	-	-
Total	104	83	86	179	53	68

This study used a convenience sample of students taking the above indicated language classes at the participating educational institutions. The participating colleges and universities were chosen based on the closeness to the researcher. The researcher did not intend to analyze how intrinsic and extrinsic motivational factors influence students' interests in learning critical and commonly taught languages based on different types of educational institutions. Nevertheless, the fact that each language group included participants from two different types of educational institutions, state universities and private liberal arts colleges, permitted the researcher to have more diverse groups of participants. There were 573 participants in this study which is a large enough sample size for statistical analysis.

Instrumentation

The instrument of this study was developed by the researcher based on the literature review and personal experience, and presented in Appendix I. The validity test had three steps: dissertation committee members' examination, a pilot test, and outside experts' examination.

The instrument initially consisted of 86 items. After the questionnaire was presented to and discussed with the dissertation committee members, the following changes were made: the number of items was reduced to 58 to lessen the time the participants would spend on the questionnaire; three open-ended questions were added to enrich data; the questionnaire items were grouped according to demographic data and research constructs, (a) choice, (b) interest, (c) goal, (d) efforts, (e) attitude, and (f) self-efficacy to help the participants focus on answering each question; the questionnaire items were revised and reformulated to avoid the ambiguity.

When the approval from the Institutional Review Boards of the participating institutions was secured the researcher conducted the pilot study, the second step of the validity test, which included 25 students currently enrolled in a French language class. The paper-based questionnaire was distributed during regular class periods and collected by the researcher. The researcher explained the objectives of this study to the students who volunteered to participate in this research. The participants were read an informed consent form that included the information about the purpose of the research, and the name and contact information of the researcher. Students' names were not mentioned at any stage of the study. The questionnaires were collected by the researcher when they were completed by the study participants. The instrument reliability was determined by using Cronbach's alpha formula for internal consistency. The Cronbach alpha was found to be .818.

The third step, the outside experts' examination, included six experts: two experts in the field of critical language teaching (Chinese and Japanese), two experts in the field of teaching commonly taught languages (French), and two experts in the field of psychology. The researcher thoroughly discussed the content and structure of the questionnaire with each expert through email communication and in person. Experts' advice was considered and additional changes

were made to the questionnaire. For example, option "other" was added to item 5, "What is your class rank?" Items 8 and 9 were changed from "I chose to learn this language because it is one of the most taught languages in the U.S." and "I chose to learn this language because it is one of the less taught languages in the U.S." to "I chose to learn this language because it is one of the most spoken languages in the world" and "I chose to learn this language because it is one of the most spoken languages in the world". Questionnaire item "I am motivated to learn this language because my major and/or future job requires me to speak a foreign language" was reworded to "I am motivated to learn this language because my future job may require me to speak a foreign language". One questionnaire item was removed, and the final version of the research instrument consisted of 57 items designed around seven constructs: (a) choice, (b) interest, (c) goal, (d) efforts, (e) attitude, (f) self-efficacy, (g) personal data.

For the intrinsic and extrinsic motivation data a 6- point Likert scale from 1, *strongly disagree*, to 6, *strongly agree* was used; for self-efficacy information, a confidence scale from 0, *not confident at all*, to 100, *highly confident* was used. Demographic data was analyzed using the descriptive statistics method.

Construct Validation with Exploratory Factor Analysis

After the data was collected, exploratory factor analysis (EFA) was conducted to determine the validity of constructs in the research questionnaire. Specifically, principal component analysis (PCA) was used to compute the solution. A correlation matrix was computed for the thirty-five Likert-scale questions of the survey questionnaire. Factor interpretability indicated a five-factor structure; this was subsequently confirmed empirically via parallel analysis. Thus, five factors were extracted from the correlation matrix and rotated to an oblique solution which allows for correlated factors (this is in contrast to an orthogonal solution

which produces uncorrelated factors). “In the social sciences we generally expect some correlation among factors, since behavior is rarely partitioned into neatly packaged units that function independently of one another ” (Costello & Osborne, 2005, p. 3). The factor loadings are reported in Table 2, and the factor correlations are given in Table 3.

According to Costello and Osborne (2005), factors with three or more salient items with loadings of .50 or better can be considered as solid factors.

In general, an item is said to be crossloading if it has large loadings on two or more factors. Tabachnick and Fidell (2001) considered .32 as the minimum loading of an item, and according to Costello and Osborne (2005) “a ‘crossloading’ item is an item that loads at .32 or higher on two or more factors” (p. 4). That is why items with two or more loadings higher than .32 were considered to be crossloading and were eliminated from the results of this EFA.

Although the instrument was designed based on the five constructs (*Choice, Interest, Effort, Attitude* and *Goals*) identified in the literature review, not all of these are represented in the final factor solution. Specifically, the attitude construct is not present since all attitude items were crossloaded with other factors. Also, the *Goals* construct split into two distinct factors—*Travel goals* and *Professional goals*.

Nine items were loaded onto Factor 1. These items relate to participants’ interest in learning more about music, traditions, and history of the target language and readiness to participate in extracurricular cultural activities. This factor was labeled *Interest construct*.

Three items loaded onto Factor 2. The items of this factor relate to students’ willingness to apply foreign language knowledge in study and professional fields. This factor was labeled *Professional goals construct*.

Four items loaded onto Factor 3 that was labeled *Travel goals construct* and relate to participants' desire to use foreign language knowledge for traveling to and working and studying in a target language country.

Table 2

Obliquely rotated component loadings for 35 survey items

	Components					
	1	2	3	4	5	Items not included in a construct
Musc15	.768					
Tradi18	.739					
Hist17	.691					
Movi13	.681					
Lit16	.650			-.330		
Food14	.646					
News12	.579					
Intrs21	.575					
Sound19	.542					
Exact20	.519					
Event29	.444		-.395			x
Know24	.374				-.349	x
Role11						X
Assecc35		.766				
Rsch36		.684				
Studr39		.646				
Jobr38		-.597	-.334			
Job37		.521	-.308	.327		
Outp40		.427			-.378	X
Live33			-.855			
Trav31			-.838			
Work34			-.834			
Stud32			-.701			
Cns30			-.536		-.326	
Natsp28	.375		-.444		-.334	X
Most8				.828		
Less9				-.680		
Hs10				.412		
Ltins7		.386		.392		X
Chal22					-.603	
Feedbc27	.302				-.553	
Time26		.330			-.534	
Pres23		.312			-.423	
Notof25					-.346	
Pns6						X

Items of Factor 4 indicate that participants chose to learn the language because they had had it in high school or because it is one of the most or less spoken languages in the world. This factor was labeled *Choice construct*.

Four items of Factor 5, *Effort* construct, relate to participants' readiness to overcome challenges in order to learn a foreign language.

According to exploratory factor analysis results, twelve items cross-loaded and were removed: item 6 (I chose to learn this language because my parents/relatives are native speakers of this language), item 7 (I chose to learn this language because a language teacher or advisor inspired me), item 11 (I chose to learn this language because the country where this language is spoken plays an important part in the world), item 16 (I am motivated to read literature of countries where this language is spoken), item 24 (I am motivated to connect the knowledge from this language course to other disciplines), item 26 (I am motivated to devote as much time as possible to home work for this language course), item 28 (I am motivated to meet people who are natives of this language), item 29 (I am motivated to participate in cultural and social events in which native speakers of this language are involved), item 30 (I am motivated to communicate with native speakers of this language), item 37 (I am motivated to learn this language to be competitive in the job market), item 38 (I am motivated to learn this language because my future job may require me to speak a foreign language), and item 40 (I am motivated to learn this language because I like to compete and outperform my classmates in this language course). Thus, exploratory factor analysis eliminated the *Attitude* construct and singled out five constructs: *Choice, Interest, Efforts, Travel goals* and *Professional goals*.

Descriptive statistics, Independent sample *t*-test, one-way ANOVA and Tukey honestly significant test, the Pearson Product Moment correlation coefficient, and Path analysis were conducted based on the exploratory factor analysis results.

The first and the second research questions were answered with constructs (a) *Choice*, (b) *Interest*, (c) *Effort*, (d) *Travel goals*, and (e) *Professional goals*. The third research question was answered based on the construct of *Self-efficacy* and other survey constructs.

Data Collection

Before conducting the study, the researcher got IRB approval from all participating educational institutions where participants were currently enrolled (Appendix B - I). The study participants were asked to answer a paper-based survey questionnaire that took about 15 minutes to complete. The survey questionnaires were administered by the researcher during regular class periods. The researcher explained the objectives of this study to the students who volunteered to participate in this research. The participants were read an informed consent form that included the information about the purpose of the research, the name and contact information of the researcher. Students' names were not mentioned at any stage of the study. The questionnaires were collected by the researcher when they were completed by the study participants.

Data Analysis

SPSS and Microsoft Excel software were used to analyze the data. The descriptive statistics, including the means, standard deviations and sample characteristics were used to analyze what motivational factors, intrinsic or extrinsic, influence students' choice to learn critical languages (research question one). Independent sample t-test was used to compare and analyze differences in the intrinsic and extrinsic motivational factors between critical and commonly taught languages students; and one-way ANOVA and Tukey honestly significant test

were used to determine if there were any significant differences among data of all the languages analyzed in this study (research question two). Pearson Product Moment correlation coefficient and Path Analysis were used to determine if there was a relationship between self-efficacy and motivation factors for learning critical languages (research question three).

Limitations of the Study

Limitation of the study are as follows: study participants represented educational institutions of two states, Minnesota and North Dakota, that were chosen based on the closeness to the researcher, study participants represented four of 13 critical languages, study participants were enrolled in the first four semesters of second language courses.

Based on the above mentioned limitations, the results of the study cannot be generalized to other critical languages and other states' educational institutions.

Response Rate

Critical language studied in this research, Chinese, Japanese, Russian, are not offered in many schools, and even when schools offer critical language courses, the number of students enrolled in these classes is usually not large. To get as many participants as possible, the researcher used and personally administered a paper-based survey specially developed for this study. As a result, the response rate was 100% that is all participants from all participating schools and language courses completed and submitted their survey questionnaires.

Demographic Data

The results of demographic statistics are shown in Table 4. All study participants belonged to the same age group.

Table 3

Responses by language and age

Language	Critical			Commonly taught			All
	Chinese	Japanese	Russian	French	German	Spanish	languages
Mean age	19.58	20.36	20.36	20.65	20.83	20.14	20.32

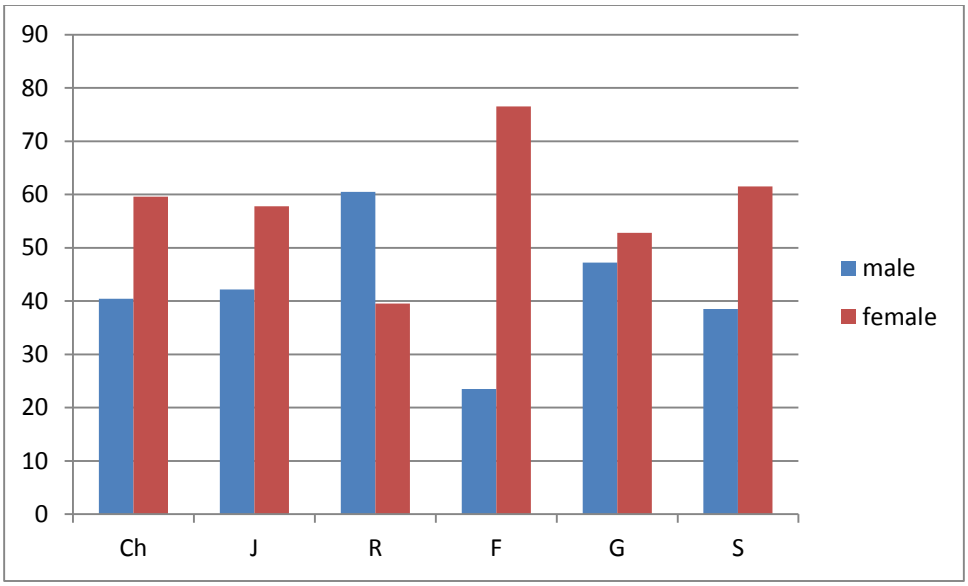
Table 5 demonstrates that overall there were more female (58%) than male (42%) students enrolled in foreign language classes. However, there were more male students (47%) taking critical language courses compared to male students (37%) taking commonly taught language courses.

Table 4

Responses by language and gender

Languages	Male		Female	
	n	%	*n*	%
Chinese	43	40.4	63	59.6
Japanese	35	42.2	48	57.8
Russian	52	60.5	34	39.5
French	16	23.5	52	76.5
German	25	47.2	28	52.8
Spanish	69	38.5	110	61.5
Critical languages	130	47	145	53
Common languages	110	37	190	63
All languages	240	42	335	58

A difference by gender was found among students taking different language courses (Figure 2). The number of male students taking Russian (60.5%) significantly exceeded the number of male students taking other languages. Interestingly enough, among students learning commonly taught languages, the number of male students learning German (47.2%) was much larger compared to male students taking French (23.5%) and Spanish (38.5%).



Ch – Chinese, J – Japanese, R – Russian, F – French, G – German, S - Spanish

Figure 2. Responses by language and gender. Chinese learners: male – 43 (40.4%), female – 63 (59.6%); Japanese learners: male – 35 (42.2%); Russian learners: male – 52 (60.5%), female – 34 (39.5%). French learners: male – 16 (23.5%), female – 52 (76.5%); German learners: male – 25 (47.2%), female – 28 (52.8%); Spanish learners: male – 69 (38.5%), female – 110 (61.5%). Overall critical language learners: male – 130 (47%), female – 145 (53%); overall commonly taught language learners: male – 110 (37%), female – 190 (63%). Overall participants: male – 240 (42%), female – 335 (58%).

Summary: The literature review identified five constructs (*Choice*, *Interest*, *Effort*, *Attitude* and *Goals*). However, based on the results of EFA, *Attitude* construct was eliminated, and the *Goals* construct split into two distinct factors—*Travel goals* and *Professional goals*. Statistical analyses were conducted using the following constructs: *Choice*, *Interest*, *Effort*, *Travel goals*, and *Professional goals*. The results and finding of statistical analyses are reported in Chapter 4.

CHAPTER 4. ANALYSIS OF DATA

Introduction

The purpose of this study was to research, compare, and analyze how intrinsic and extrinsic motivational factors influence interests in learning critical and commonly taught languages. Furthermore, the study examined and compared the role of self-efficacy in learning critical and commonly taught languages.

The specific research questions were as follows:

4. What intrinsic and extrinsic motivational factors most influence a students' interest to learn critical languages?
5. Are there differences in intrinsic and extrinsic motivational factors between critical and commonly taught language students?
6. Is there a relationship between self-efficacy and intrinsic and extrinsic motivational factors for learning critical languages?

Chapter IV presents results of data analyses and findings of the study. The descriptive statistics, including the means, standard deviations and sample characteristics were used to analyze what motivational factors, intrinsic or extrinsic, influence students' choice to learn critical and commonly taught languages (research question one). Independent sample t-test, was used to compare and analyze differences in the intrinsic and extrinsic motivational factors between critical and commonly taught languages students; and one-way ANOVA and Tukey honestly significant test, were used to determine if there were any significant differences among data of all the languages analyzed in this study (research question two). Pearson Product Moment correlation coefficient and Path analysis were used to determine if there was a relationship

between self-efficacy and motivational factors for learning critical languages (research question three).

Sample Descriptive Statistics

The descriptive statistics, including the means, standard deviations and sample characteristics were used to analyze what motivational factors, intrinsic or extrinsic, influence students' choice to learn critical and commonly taught languages. The results are presented by languages: critical (Chinese, Japanese, and Russian) and commonly taught (French, German, and Spanish) followed by the comparative table that emphasizes items with combined *disagree*/*strongly disagree* and *agree*/ *strongly agree* scores greater than 65% by language.

Chinese. In the following tables the items are coded using numeric abbreviations. The numbers represent the survey question numbers and can be cross-referenced with the instrument found in Appendix A. Crossloaded items are shown in Table 6.

A majority of the students taking Chinese agreed or strongly agreed with one item in the *Choice* construct (Table 7). Of the students studying Chinese, 78.8% agreed or strongly agreed (M = 5.15, SD = 1.04) that they chose to study this language because it is one of the most spoken languages in the world.

A majority of the students taking Chinese agreed or strongly agreed with three of the items in the Interest construct. Of the students studying Chinese, 89.4% agreed or strongly agreed (M = 5.48, SD = 0.71) that they were motivated to try food of countries where this language is spoken. Of the students studying Chinese, 71.1% agreed or strongly agreed (M =4.89, SD = 1.03) that they were motivated to learn the history of the countries where this language is spoken, and 81.7% agreed or strongly agreed (M =5.29, SD = 0.99) that they were motivated to learn culture and traditions of countries where this language is spoken.

Table 5

Chinese. Crossloaded items not included to a construct based on factor analysis results

Items	Strongly disagree		Disagree		Slightly disagree		Slightly agree		Agree		Strongly agree			
	F	%	F	%	F	%	F	%	F	%	F	%	*M*	*SD*
PNS6	91	87.5	5	4.8	0	0	0	0	1	1.0	7	6.7	1.42	1.31
ITINS7	35	33.7	14	13.5	6	5.8	15	14.4	21	20.2	13	12.5	3.12	1.82
ROLE11	2	1.9	1	1.0	2	1.9	6	5.8	26	25.0	67	64.4	5.44	0.99
LIT16	7	6.7	8	7.7	12	11.5	42	40.4	22	21.2	13	12.5	3.99	1.33
KNOW24	1	1.0	4	3.8	2	1.9	27	26.0	43	41.3	27	26.0	4.81	1.03
TIME26	3	2.9	3	2.9	20	19.2	33	31.7	31	29.8	13	12.5	4.216	1.16
NATSP28	0	0	0	0	2	1.9	18	17.3	37	35.6	47	45.2	5.24	0.81
EVENT29	0	0	0	0	6	5.8	21	20.2	35	33.7	42	40.4	5.09	0.92
CNS30	0	0	0	0	2	1.9	20	19.2	35	33.7	47	45.2	5.22	0.82
JOB37	2	1.9	3	2.9	3	2.9	12	11.5	29	27.9	55	52.9	5.19	1.14
JOBR38	2	1.9	3	2.9	5	4.8	19	18.3	21	20.2	54	51.9	5.08	1.21
OUTPR40	10	9.6	9	8.7	16	15.4	30	28.8	21	20.2	18	17.3	3.93	1.51

Table 6

Response frequency and percentage by motivation statement by construct, Chinese

Items	Strongly disagree		Disagree		Slightly disagree		Slightly agree		Agree		Strongly agree			
	F	%	F	%	F	%	F	%	F	%	F	%	*M*	*SD*
Choice														
MOST8	1	1.0	2	1.9	4	3.8	15	14.4	33	31.7	49	47.1	5.15	1.04
LESS9	77	74.0	20	19.2	3	2.9	2	1.9	1	1.0	1	1.0	1.39	0.85
HS10	65	62.5	7	6.7	0	0	4	3.8	11	10.6	17	16.3	2.42	2.05
Interest														
NEWS12	15	14.4	12	11.5	21	20.2	34	32.7	15	14.4	7	6.7	3.41	1.43
MOVI13	3	2.9	6	5.8	5	4.8	32	30.8	34	32.7	24	23.1	4.54	1.23

Table 6. Response frequency and percentage by motivation statement by construct, Chinese (Continued)

Items	Strongly disagree		Disagree		Slightly disagree		Slightly agree		Agree		Strongly agree			
	F	%	F	%	F	%	F	%	F	%	F	%	*M*	*SD*
FOOD14	0	0	0	0	1	1.0	10	9.6	31	29.8	62	59.6	5.48	0.71
MUSC15	3	2.9	6	5.8	6	5.8	36	34.6	22	21.2	31	29.8	4.55	1.29
HIST17	2	1.9	1	1.0	4	3.8	23	22.1	43	41.3	31	29.8	4.89	1.03
TRADI18	1	1.0	2	1.9	1	1.0	15	14.4	28	26.9	57	54.8	5.29	0.99
SOUND19	3	2.9	11	10.6	20	19.2	29	27.9	19	18.3	22	21.2	4.12	1.38
EXACT20	5	4.8	10	9.6	16	15.4	28	26.9	24	23.1	21	20.2	4.14	1.42
INTERS21	7	6.7	12	11.5	17	16.3	12	11.5	20	19.2	36	34.6	4.29	1.66
Effort														
CHAL22	0	0	1	1.0	2	1.9	6	5.8	45	43.3	50	48.1	5.36	0.76
PRES23	9	8.7	7	6.7	18	17.3	32	30.8	24	23.1	14	13.5	3.93	1.42
NOTOF25	23	22.1	15	14.4	19	18.3	17	16.3	13	12.5	17	16.3	3.32	1.76
FEEDBC27	0	0	0	0	1	1.0	18	17.3	43	41.3	42	40.4	5.21	0.76
Travel goals														
TRAV31	0	0	3	2.9	3	2.9	9	8.7	28	26.9	61	58.7	5.36	0.97
STUD32	0	0	9	8.7	6	5.8	17	16.3	28	26.9	44	42.3	4.88	1.26
LIVE33	1	1.0	5	4.8	4	3.8	14	13.5	33	31.7	47	45.2	5.06	1.16
WORK34	1	1.0	4	3.8	2	1.9	12	11.5	29	27.9	56	53.8	5.23	1.09
Professional goals														
ACCES35	6	5.8	18	17.3	24	23.1	25	24.0	21	20.2	10	9.6	3.64	1.39
RSCH36	5	4.8	20	19.2	13	12.5	25	24.0	27	26.0	14	13.5	3.88	1.46
STUDR39	16	15.4	20	19.2	16	15.4	16	15.4	14	13.5	22	21.2	3.56	1.77

Note: percentages may not add to 100% due to rounding.

A majority of the students taking Chinese agreed or strongly agreed with two of the items in the *Effort* construct. Of the students studying Chinese, 91.4% agreed or strongly agreed (*M* = 5.36 , *SD* = 0.76) that they were motivated to handle the challenge of learning a foreign

language, and 81.7% agreed or strongly agreed (M = 5.21, SD = 0.76) that positive feedback from the instructor increased their motivation to succeed at learning the language.

A majority of the students taking Chinese agreed or strongly agreed with three of the items in the *Travel goals* construct. Of the students studying Chinese, 85.6% agreed or strongly agreed (M = 5.36, SD = 0.97) that they were motivated to learn this language because they planned to travel to a country where this language is spoken. Of the students studying Chinese, 69.2% agreed or strongly agreed (M = 4.88, SD = 1.26) that they were motivated to learn this language because they wanted to study in the target language country. Of the students studying Chinese, 76.9% agreed or strongly agreed (M =5.06, SD = 1.16) that they were motivated to learn this language because it will enable them to live in different countries, and 81.7% agreed or strongly agreed (M = 5.23, SD = 1.09) that they were motivated to learn this language because it will enable them to work in different countries.

Summary: The data showed that students taking Chinese were motivated by the challenge of learning Chinese (91.4%), by the possibility to travel to (85.6%) and work in (81.7%) China, and by the instructor's positive feedback (81.7%). 89.4% of participants were interested in Chinese food, and 81.7% were interested in learning Chinese traditions.

Japanese. A majority of the students taking Japanese disagreed or strongly disagreed with one item in the *Choice* construct (Table 9). Of the students taking Japanese, 68.6% disagreed or strongly disagreed that they chose to learn this language because they had had it in high school.

Table 7

Japanese. Crossloaded items not included to a construct based on factor analysis results

Items	Strongly disagree		Disagree		Slightly disagree		Slightly agree		Agree		Strongly agree			
	F	%	F	%	F	%	F	%	F	%	F	%	*M*	*SD*
PNS6	67	80.7	4	4.8	1	1.2	0	0	5	6.0	6	7.2	1.67	1.56
ITINS7	34	41.0	16	19.3	10	12.0	11	13.3	7	8.4	5	6.0	2.47	1.61
ROLE11	1	1.2	0	0	6	7.2	14	16.9	37	44.6	25	30.1	4.94	0.98
LIT16	0	0	2	2.4	4	4.8	10	12.0	25	30.1	42	50.6	5.22	1.00
KNOW24	1	1.2	4	4.8	8	9.6	19	22.9	24	28.9	27	32.5	4.71	1.23
TIME26	3	3.6	5	6.0	10	12.0	22	26.5	31	37.3	12	14.5	4.31	1.26
NATSP28	0	0	1	1.2	0	0	12	14.5	31	37.3	39	47.0	5.29	0.80
EVENT29	1	1.2	1	1.2	3	3.6	13	15.7	27	32.5	38	45.8	5.14	1.03
CNS30	0	0	2	2.4	1	1.2	12	14.5	23	27.7	45	54.2	5.30	0.93
JOB37	7	8.4	5	6.0	7	8.4	21	25.3	24	28.9	19	22.9	4.29	1.49
JOBR38	4	4.8	5	6.0	9	10.8	22	26.5	17	20.5	26	31.3	4.46	1.43
OUTPR40	7	8.4	16	19.3	18	21.7	16	19.3	16	19.3	10	12.0	3.58	1.51

Table 8

Response frequency and percentage by motivation statement, Japanese

Items	Strongly disagree		Disagree		Slightly disagree		Slightly agree		Agree		Strongly agree			
	F	%	F	%	F	%	F	%	F	%	F	%	*M*	*SD*
Choice														
MOST8	13	15.7	31	37.3	17	20.5	19	22.9	3	3.6	0	0	2.61	1.11
LESS9	11	13.3	18	21.7	21	25.3	21	25.3	9	10.8	3	3.6	3.10	1.33
HS10	51	61.4	6	7.2	3	3.6	5	6.0	8	9.6	10	12.0	2.31	1.91
Interest														
NEWS12	5	6.0	4	4.8	6	7.2	23	27.7	27	32.5	18	21.7	4.41	1.36
MOVI13	0	0	1	1.2	2	2.4	5	6.0	20	24.1	55	66.3	5.52	0.82
FOOD14	0	0	0	0	2	2.4	5	6.0	17	20.5	59	71.1	5.60	0.72

Table 8. Response frequency and percentage by motivation statement, Japanese (Continued)

Items	Strongly disagree		Disagree		Slightly disagree		Slightly agree		Agree		Strongly agree			
	F	%	F	%	F	%	F	%	F	%	F	%	*M*	*SD*
MUSC15	0	0	2	2.4	2	2.4	11	13.3	23	27.7	45	54.2	5.29	0.96
HIST17	1	1.2	3	3.6	1	1.2	13	15.7	21	25.3	44	53.0	5.19	1.11
TRADI18	0	0	1	1.2	1	1.2	4	4.8	19	22.9	58	69.9	5.59	0.75
SOUND19	1	1.2	0	0	2	2.4	20	24.1	20	24.1	40	48.2	5.14	1.00
EXACT20	2	2.4	3	3.6	11	13.3	19	22.9	23	27.7	25	30.1	4.60	1.28
INTERS21	1	1.2	5	6.0	8	9.6	11	13.3	19	22.9	39	47.0	4.92	1.32
Effort														
CHAL22	0	0	0	0	1	1.2	7	8.4	31	37.3	44	53.0	5.42	0.70
PRES23	4	4.8	8	9.6	16	19.3	26	31.3	19	22.9	10	12.0	3.94	1.32
NOTOF25	11	13.3	18	21.7	11	13.3	11	13.3	14	16.9	18	21.7	3.64	1.77
FEEDBC27	0	0	2	2.4	1	1.2	15	18.1	36	43.4	29	34.9	5.07	0.89
Travel goals														
TRAV31	1	1.2	0	0	1	1.2	2	2.4	16	19.3	63	75.9	5.66	0.77
STUD32	2	2.4	3	3.6	4	4.8	13	15.7	18	21.7	43	51.8	5.06	1.26
LIVE33	1	1.2	3	3.6	6	7.2	15	18.1	27	32.5	31	37.3	4.89	1.17
WORK34	1	1.2	1	1.2	4	4.8	18	21.7	22	26.5	37	44.6	5.05	1.08
Professional goals														
ACCES35	9	10.8	18	21.7	10	12.0	20	24.1	12	14.5	14	16.9	3.60	1.63
RSCH36	8	9.6	13	15.7	13	15.7	17	20.5	20	24.1	12	14.5	3.77	1.56
STUDR39	13	15.7	19	22.9	9	10.8	13	15.7	12	14.5	17	20.5	3.52	1.79

A majority of the students taking Japanese agreed or strongly agreed with seven of the items in the *Interest* construct. Of the students studying Japanese 90.4% agreed or strongly agreed ($M = 5.52$, $SD = 0.82$) that they were motivated to watch movies made in countries where this language is spoken; 91.6% agreed or strongly agreed ($M = 5.60$, $SD = 0.72$) that they were motivated to try foods of countries where this language is spoken; 81.9% agreed or strongly

agreed (*M* = 5.29 , *SD* = 0.96) that they were motivated to learn more about the music of countries where this language is spoken; 78.3% agreed or strongly agreed (*M* = 5.19 , *SD* = 1.11) that they were motivated to learn the history of the countries where this language is spoken; 92.8% agreed or strongly agreed (*M* =5.59 , *SD* = 0.75) that they were motivated to learn cultures and traditions of the countries where this language is spoken; 72.3% agreed or strongly agreed (*M* = 5.14, *SD* = 1.00) that they were motivated to learn this language because they liked how it sounds; 69.9% agreed or strongly agreed (*M* = 4.92 , *SD* = 1.32) that they were motivated to learn this language just because it was interesting even if they would not apply it in their future career.

A majority of the students taking Japanese agreed or strongly agreed with two of the items in the *Effort* construct. Of the students studying Japanese, 90.3% agreed or strongly agreed (*M* = 5.42, *SD* = 0.70) that they were motivated to handle the challenge of learning a foreign language, and 78.3% agreed or strongly agreed (*M* = 5.07, *SD* = 0.89) that positive feedback from the instructor increased their motivation to succeed in learning the language.

A majority of the students taking Japanese agreed or strongly agreed with four of the items in the *Travel goals* construct. Of the students studying Japanese, 95.2% agreed or strongly agreed (*M* = 5.66, *SD* = 0.77) that they were motivated to learn this language because they planned to travel to a country where this language is spoken. Of the students studying Japanese, 73.5% agreed or strongly agreed (*M* = 5.06, *SD* = 1.26) that they were motivated to learn this language because they wanted to study in the target language country. Of the students studying Japanese, 69.8% agreed or strongly agreed (*M* = 4.89, *SD* = 1.17) that they were motivated to learn this language because it would enable them to live in different countries, and 71.1% agreed

or strongly agreed (*M* = 5.05, *SD* = 1.08) that they were motivated to learn this language because it would enable them to work in different countries.

Summary: The data showed that students taking Japanese demonstrated that 92.8% of participants were interested in Japanese traditions, 91.6% were interested in Japanese food, 90.4% of students were interested in watching Japanese movies, 81.9% were interested in Japanese music. For the extrinsic motivation, 95.2% of Japanese students planned to travel to Japan, 90.3% of students were motivated by the challenge of learning Japanese. They also expressed strong interest in studying (73.5%) and working (71.1%) in Japan.

Table 9

Russian. Crossloaded items not included to a construct based on factor analysis results

Items	Strongly disagree		Disagree		Slightly disagree		Slightly agree		Agree		Strongly agree			
	F	%	F	%	F	%	F	%	F	%	F	%	*M*	*SD*
PNS6	76	88.4	8	9.3	0	0	0	0	0	0	2	2.3	1.21	0.80
ITINS7	37	43.0	16	18.6	7	8.1	11	12.8	7	8.1	8	9.3	2.52	1.73
ROLE11	2	2.3	2	2.3	2	2.3	12	14.0	35	40.7	33	38.4	5.03	1.10
LIT16	2	2.3	1	1.2	14	16.3	31	36.0	0	0	38	44.2	5.19	0.91
KNOW24	1	1.2	0	0	4	4.7	13	15.1	42	48.8	26	30.2	5.01	0.91
TIME26	1	1.2	6	7.0	14	16.3	29	33.7	25	29.1	11	12.8	4.21	1.15
NATSP28	0	0	1	1.2	4	4.7	10	11.6	33	38.4	38	44.2	5.20	0.91
EVENT29	0	0	4	4.7	2	2.3	19	22.1	28	32.6	33	38.4	4.98	1.06
CNS30	0	0	2	2.3	3	3.5	12	14.0	36	41.9	33	38.4	5.10	0.93
JOB37	0	0	2	2.3	13	15.1	24	27.9	28	32.6	19	22.1	4.57	1.07
JOBR38	1	1.2	7	8.1	5	5.8	20	23.3	27	31.4	25	29.1	4.63	1.26
OUTPR40	7	8.1	13	15.1	12	14.0	20	23.3	20	23.3	14	16.3	3.87	1.54

Russian. A majority of the students taking Russian disagreed or strongly disagreed with one item in the *Choice* construct (Table 11). Of the students taking Russian 96.5% disagreed or

strongly disagreed (*M* = 1.23, *SD* = 0.79) that they chose to learn this language because they had it in high school.

Table 10

Response frequency and percentage by motivation statement, Russian

Items	Strongly disagree		Disagree		Slightly disagree		Slightly agree		Agree		Strongly agree			
	F	%	F	%	F	%	F	%	F	%	F	%	*M*	*SD*
Choice														
MOST8	11	12.8	12	14.0	16	18.6	34	39.5	8	9.3	5	5.8	3.36	1.35
LESS9	17	19.8	25	29.1	19	22.1	15	17.4	8	9.3	2	2.3	2.74	1.34
HS10	75	87.2	8	9.3	0	0	1	1.2	1	1.2	1	1.2	1.23	0.79
Interest														
NEWS12	2	2.3	5	5.8	8	9.3	38	44.2	21	24.4	12	14.0	4.24	1.14
MOVI13	0	0	7	8.1	1	1.2	18	20.9	31	36.0	29	33.7	4.86	1.15
FOOD14	1	1.2	1	1.2	1	1.2	14	16.3	28	32.6	41	47.7	5.21	0.97
MUSC15	1	1.2	5	5.8	1	1.2	13	15.1	30	34.9	36	41.9	5.02	1.16
HIST17	0	0	1	1.2	5	5.8	5	5.8	29	33.7	46	53.5	5.33	0.91
TRADI18	0	0	1	1.2	1	1.2	10	11.6	22	25.6	52	60.5	5.43	0.83
SOUND19	1	1.2	3	3.5	9	10.5	15	17.4	22	25.6	36	41.9	4.88	1.23
EXACT20	1	1.2	3	3.5	15	17.4	25	29.1	24	27.9	18	20.9	4.42	1.17
INTERS21	2	2.3	3	3.5	4	4.7	17	19.8	28	32.6	32	37.2	4.88	1.20
Effort														
CHAL22	0	0	1	1.2	0	0	8	9.3	38	44.2	39	45.3	5.33	0.74
PRES23	2	2.3	6	7.0	16	18.6	33	38.4	19	22.1	10	11.6	4.06	1.17
NOTOF25	8	9.3	16	18.6	16	18.6	11	12.8	11	12.8	24	27.9	3.85	1.74
FEEDBC27	0	0	0	0	1	1.2	16	18.6	40	46.5	29	33.7	5.13	0.75
Travel goals														
TRAV31	0	0	3	3.5	6	7.0	17	19.8	18	20.9	42	48.8	5.05	1.14
STUD32	1	1.2	7	8.1	11	12.8	29	33.7	12	14.0	26	30.2	4.42	1.32
LIVE33	0	0	3	3.5	8	9.3	26	30.2	24	27.9	25	29.1	4.70	1.10

Table 10. Response frequency and percentage by motivation statement, Russian (Continued)

Items	Strongly disagree		Disagree		Slightly disagree		Slightly agree		Agree		Strongly agree			
	F	%	F	%	F	%	F	%	F	%	F	%	*M*	*SD*
WORK34	0	0	2	2.3	9	10.5	21	24.4	25	29.1	29	33.7	4.81	1.09
Professional goals														
ACCES35	4	4.7	21	24.4	14	16.3	26	30.2	15	17.4	6	7.0	3.52	1.34
RSCH36	3	3.5	12	14.0	18	20.9	27	31.4	18	20.9	8	9.3	3.80	1.28
STUDR39	18	20.9	17	19.8	8	9.3	10	11.6	19	22.1	14	16.3	3.43	1.83

A majority of the students taking Russian agreed or strongly agreed with seven of the items in the *Interest* construct. Of the students studying Russian, 69.7% agreed or strongly agreed (*M* = 4.86, *SD* = 1.15) that they were motivated to watch movies made in countries where this language is spoken; 80.3% agreed or strongly agreed (*M* = 5.21 , *SD* = 0.97) that they were motivated to try food of the countries where this language is spoken; 76.8% agreed or strongly agreed (*M* = 5.02 , *SD* = 1.16) that they were motivated to learn more about the music of countries where this language is spoken; 87.2% agreed or strongly agreed (*M* = 5.33, *SD* = 0.91) that they were motivated to learn the history of the countries where this language is spoken; 86.1% agreed or strongly agreed (*M* = 5.43, *SD* = 0.83) that they were motivated to learn cultures and traditions of the countries where this language is spoken; 67.5% agreed or strongly agreed (*M* = 4.88, *SD* = 1.23) that they were motivated to learn this language because they liked how it sounds; 69.8% agreed or strongly agreed (*M* = 4.88 , *SD* = 1.20) that they were motivated to learn this language just because it was interesting even if they would not apply it in their future career.

A majority of the students taking Russian agreed or strongly agreed with two of the items in the *Effort* construct. Of the students studying Russian, 89.5% agreed or strongly agreed (*M* =

5.33, *SD* = 0.74) that they were motivated to handle the challenge of learning a foreign language; and 80.2% agreed or strongly agreed (*M* = 5.13 , *SD* = 0.75) that positive feedback from the instructor increased their motivation to succeed in learning the language.

A majority of the students taking Russian agreed or strongly agreed with one item in the *Travel goal* construct. Of the students studying Russian, 69.7% agreed or strongly agreed (*M* = 5.05, *SD* = 1.14) that they were motivated to learn this language because they planned to travel to countries where this language is spoken.

Summary: For the intrinsic motivation, 87.2% of students were interested in Russian history, 86.1% of students were interested in Russian traditions, and 80.3% of students were interested in Russian food. For extrinsic motivation, 89.5% of students were motivated by the challenge to learn Russian, and 80.2% of students were motivated by instructor's positive feedback.

French. A majority of the students taking French disagreed or strongly disagreed with one item in the *Choice* construct (Table 13). Of the students taking French, 80.9% disagree or strongly disagree (*M* = 1.87, *SD* = 0.75) that they chose to learn French because it is the less spoken language in the world.

Table 11

French. Crossloaded items not included in a construct based on factor analysis results

Items	Strongly disagree		Disagree		Slightly disagree		Slightly agree		Agree		Strongly agree			
	F	%	F	%	F	%	F	%	F	%	F	%	*M*	*SD*
PNS6	55	80.9	6	8.8	2	2.9	2	2.9	1	1.5	2	2.9	1.44	1.13
ITINS7	23	33.8	16	23.5	6	8.8	13	19.1	7	10.3	3	4.4	2.62	1.57
ROLE11	3	4.4	2	2.9	6	8.8	25	36.8	19	27.9	13	19.1	4.38	1.23
LIT16	4	5.9	5	7.4	8	11.8	18	26.5	25	36.8	8	11.8	4.16	1.33
KNOW24	2	2.9	2	2.9	9	13.2	20	29.4	22	32.4	13	19.1	4.43	1.20
TIME26	4	5.9	7	10.3	17	25.0	19	27.9	14	20.6	7	10.3	3.78	1.34
NATSP28	0	0	0	0	3	4.4	17	25.0	25	35.3	24	35.3	5.01	0.89
EVENT29	0	0	2	2.9	7	10.3	22	32.4	20	29.4	17	25.0	4.63	1.06
CNS30	1	1.5	2	2.9	4	5.9	16	23.5	27	39.7	18	26.5	4.76	1.09
JOB37	2	2.9	4	5.9	6	8.8	25	36.8	16	23.5	15	22.1	4.38	1.26
JOBR38	5	7.4	10	14.7	8	11.8	20	29.4	11	16.2	14	20.6	3.94	1.54
OUTPR40	8	11.8	7	10.3	15	22.1	17	25.0	11	16.2	10	14.7	3.68	1.54

Table 12

Response frequency and percentage by motivation statement, French

Items	Strongly disagree		Disagree		Slightly disagree		Slightly agree		Agree		Strongly agree			
	F	%	F	%	F	%	F	%	F	%	F	%	*M*	*SD*
Choice														
MOST8	5	7.4	3	4.4	5	7.4	26	38.2	23	33.8	6	8.8	4.13	1.27
LESS9	23	33.8	32	47.1	12	17.6	1	1.5	0	0	0	0	1.87	0.75
HS10	27	39.7	6	8.8	0	0	5	7.4	15	22.1	15	22.1	3.29	2.14
Interest														
NEWS12	6	8.8	13	19.1	10	14.7	25	36.8	12	17.6	2	2.9	3.44	1.31
MOVI13	0	0	3	4.4	5	7.4	23	33.8	23	33.8	14	20.6	4.59	1.04
FOOD14	1	1.5	2	2.9	4	5.9	7	10.3	28	41.2	26	38.2	5.01	1.11

Table 12. Response frequency and percentage by motivation statement, French (Continued)

Items	Strongly disagree		Disagree		Slightly disagree		Slightly agree		Agree		Strongly agree			
	F	%	F	%	F	%	F	%	F	%	F	%	*M*	*SD*
MUSC15	1	1.5	1	1.5	8	11.8	17	25.0	24	35.3	17	25.0	4.66	1.11
HIST17	2	2.9	5	7.4	7	10.3	14	20.6	19	27.9	21	30.9	4.56	1.38
TRADI18	2	2.9	2	2.9	1	1.5	17	25.0	22	32.4	24	35.3	4.87	1.18
SOUND19	1	1.5	1	1.5	6	8.8	8	11.8	30	44.1	22	32.4	4.93	1.08
EXACT20	4	5.9	9	13.2	17	25.0	25	36.8	8	11.8	5	7.4	3.57	1.25
INTERS21	2	2.9	3	4.4	4	5.9	14	20.6	25	36.8	20	29.4	4.72	1.24
Effort														
CHAL22	0	0	0	0	6	8.8	11	16.2	30	44.1	21	30.9	4.97	0.91
PRES23	6	8.8	11	16.2	26	38.2	18	26.5	5	7.4	2	2.9	3.16	1.15
NOTOF25	9	13.2	12	17.6	15	22.1	16	23.5	11	16.2	5	7.4	3.34	1.47
FEEDBC27	0	0	1	1.5	3	4.4	10	14.7	30	44.1	24	35.3	5.07	0.90
Travel goals														
TRAV31	0	0	0	0	1	1.5	9	13.2	20	29.4	38	55.9	5.40	0.78
STUD32	3	4.4	5	7.4	9	13.2	23	33.8	10	14.7	18	26.5	4.72	1.41
LIVE33	4	5.9	6	8.8	3	4.4	15	22.1	22	32.4	18	26.5	4.46	1.46
WORK34	4	5.9	4	5.9	4	5.9	14	20.6	21	30.9	21	30.9	4.57	1.44
Professional goals														
ACCES35	7	10.3	17	25.0	16	23.5	15	22.1	6	8.8	7	10.3	3.25	1.46
RSCH36	5	7.4	15	22.1	19	27.9	15	22.1	7	10.3	7	10.3	3.37	1.40
STUDR39	12	17.6	15	22.1	5	7.4	10	14.7	9	13.2	17	25.0	3.59	1.89

A majority of the students taking French agreed or strongly agreed with three of the items in the *Interest* construct. Of the students studying French, 79.4% agreed or strongly agreed (*M* = 5.01, *SD* = 1.11) that they were motivated to try food of the countries where this language is spoken, and 76.5% agreed or strongly agreed (*M* = 4.93, *SD* = 1.08) that they were motivated to learn this language because they liked how it sounds. Of the students studying French, 66.2%

agreed or strongly agreed (*M* = 4.72, *SD* = 1.24) that they were motivated to learn this language just because it was interesting even if they would not apply it in their future career.

A majority of the students taking French agreed or strongly agreed with two of the items in the *Effort* construct. Of the students studying French, 75% agreed or strongly agreed (*M* = 4.97, *SD* = 0.91) that they were motivated to handle the challenge of learning a foreign language, and 79.4% agreed or strongly agreed (*M* = 5.07, *SD* = 0.90) that positive feedback from the instructor increased their motivation to succeed in learning the language.

A majority of the students taking French agreed or strongly agreed with one of the items in the *Travel goals* construct. Of the students studying French, 85.3% agreed or strongly agreed (*M* = 5.40 , *SD* = 0.78) that they were motivated to learn this language because they planned to travel to a country where this language is spoken.

Summary: For the extrinsic motivation, most of the students taking French were motivated by travel plans (85.3%), by the instructor's positive feedback (79.4%), and by the challenge of learning French (75%). For the intrinsic motivation, students learning French were interested in French food (79.4%), and 76.5% students were motivated to learn French because they liked how it sounds.

German. A majority of the students taking German agreed or strongly agreed with two items in the *Interest* construct (Table 15). Of the students studying German, 84.9% agreed or strongly agreed (*M* = 5.19, *SD* = 1.06) that they were motivated to try the food of the countries where this language is spoken, and 83% were motivated (*M* = 5.38, *SD* = 0.90) to learn about the cultures and traditions of the countries where this language is spoken.

Table 13

German. Crossloaded items not included in a construct based on factor analysis results

Items	Strongly disagree		Disagree		Slightly disagree		Slightly agree		Agree		Strongly agree			
	F	%	F	%	F	%	F	%	F	%	F	%	*M*	*SD*
PNS6	55	80.9	6	8.8	2	2.9	2	2.9	1	1.5	2	2.9	1.44	1.13
ITINS7	23	33.8	16	23.5	6	8.8	13	19.1	7	10.3	3	4.4	2.62	1.57
ROLE11	3	4.4	2	2.9	6	8.8	25	36.8	19	27.9	13	19.1	4.38	1.23
LIT16	4	5.9	5	7.4	8	11.8	18	26.5	25	36.8	8	11.8	4.16	1.33
KNOW24	2	2.9	2	2.9	9	13.2	20	29.4	22	32.4	13	19.1	4.43	1.20
TIME26	4	5.9	7	10.3	17	25.0	19	27.9	14	20.6	7	10.3	3.78	1.34
NATSP28	0	0	0	0	3	4.4	17	25.0	25	35.3	24	35.3	5.01	0.89
EVENT29	0	0	2	2.9	7	10.3	22	32.4	20	29.4	17	25.0	4.63	1.06
CNS30	1	1.5	2	2.9	4	5.9	16	23.5	27	39.7	18	26.5	4.76	1.09
JOB37	2	2.9	4	5.9	6	8.8	25	36.8	16	23.5	15	22.1	4.38	1.26
JOBR38	5	7.4	10	14.7	8	11.8	20	29.4	11	16.2	14	20.6	3.94	1.54
OUTPR40	8	11.8	7	10.3	15	22.1	17	25.0	11	16.2	10	14.7	3.68	1.54

Table 14

Response frequency and percentage by motivation statement, German

Items	Strongly disagree		Disagree		Slightly disagree		Slightly agree		Agree		Strongly agree			
	F	%	F	%	F	%	F	%	F	%	F	%	*M*	*SD*
Choice														
MOST8	5	9.4	13	24.5	7	13.2	20	37.7	7	13.2	1	1.9	3.26	1.29
LESS9	9	17.0	19	35.8	18	34.0	4	7.5	3	5.7	0	0	2.49	1.05
HS10	19	35.8	5	9.4	0	0	3	5.7	14	26.4	12	22.6	3.45	2.14
Interest														
NEWS12	1	1.9	8	15.1	17	32.1	16	30.2	7	13.2	4	7.5	3.60	1.17
MOVI13	2	3.8	3	5.7	5	9.4	21	39.6	12	22.6	10	18.9	4.28	1.26
FOOD14	1	1.9	0	0	4	7.5	3	5.7	20	37.7	25	47.2	5.19	1.06

Table 14. Response frequency and percentage by motivation statement, German (Continued)

Items	Strongly disagree		Disagree		Slightly disagree		Slightly agree		Agree		Strongly agree			
	F	%	F	%	F	%	F	%	F	%	F	%	*M*	*SD*
MUSC15	1	1.9	3	5.7	6	11.3	8	15.1	18	34.0	17	32.1	4.70	1.30
HIST17	0	0	3	5.7	5	9.4	11	20.8	15	28.3	19	35.8	4.79	1.20
TRADI18	0	0	0	0	3	5.7	6	11.3	12	22.6	32	60.4	5.38	0.90
SOUND19	1	1.9	7	13.2	6	11.3	15	28.3	16	30.2	8	15.1	4.17	1.31
EXACT20	1	1.9	15	28.3	5	9.4	20	37.7	7	13.2	5	9.4	3.60	1.34
INTERS21	2	3.8	4	7.5	9	17.0	11	20.8	12	22.6	15	28.3	4.36	1.44
Effort														
CHAL22	0	0	1	1.9	3	5.7	6	11.3	28	52.8	15	28.3	5.00	0.90
PRES23	3	5.7	13	24.5	12	22.6	16	30.2	7	13.2	2	3.8	3.32	1.25
NOTOF25	8	15.1	16	30.2	8	15.1	7	13.2	6	11.3	8	15.1	3.21	1.69
FEEDBC27	0	0	1	1.9	1	1.9	14	26.4	20	37.7	17	32.1	4.96	0.92
Travel goals														
TRAV31	0	0	3	5.7	0	0	8	15.1	14	26.4	28	52.8	5.21	1.08
STUD32	1	1.9	8	15.1	9	17.0	13	24.5	8	15.1	14	26.4	4.15	1.47
LIVE33	0	0	4	7.5	5	9.4	15	28.3	14	26.4	15	28.3	4.58	1.22
WORK34	0	0	3	5.7	3	5.7	14	26.4	15	28.3	18	34.0	4.79	1.15
Professional goals														
ACCES35	7	13.2	7	13.2	10	18.9	16	30.2	6	11.3	7	13.2	3.53	1.54
RSCH36	6	11.3	6	11.3	10	18.9	18	34.0	7	13.2	6	11.3	3.60	1.46
STUDR39	11	20.8	13	24.5	4	7.5	5	9.4	7	13.2	13	24.5	3.46	1.95

A majority of the students taking German agreed or strongly agreed with two of the items in the *Effort* construct. Of the students studying German, 81.1% agreed or strongly agreed (M = 5.00, SD = .90) that they were motivated to handle the challenge of learning a foreign language, and 69.8% agreed or strongly agreed (M = 4.96, SD = 0.92) that positive feedback from the instructor increased their motivation to succeed in learning the language.

A majority of the students taking German agreed or strongly agreed with one of the items in the *Travel goals* construct. Of the students studying German, 79.2% agreed or strongly agreed (M = 5.21, SD = 1.08) that they were motivated to learn this language because they planned to travel to a country where this language is spoken.

Summary: For the extrinsic motivation, most of the students were motivated by the challenge of learning German (81.1%) and by the possibility to travel (79.2%). For the intrinsic motivation, students learning German were interested in food (84.9%) and traditions (83%).

Spanish. A majority of the students taking Spanish disagreed or strongly disagreed with one item in the *Choice* construct (Table 17). Of the students taking Spanish 88.8% disagree or strongly disagree (M = 1.60, SD = 0.82) that they chose to learn Spanish because it is the less spoken language in the world.

A majority of the students taking Spanish agreed or strongly agreed with two items in the *Choice* construct. Of the students studying Spanish, 71.5% agreed or strongly agreed (M = 4.85, SD = 1.03) that they chose to learn this language because it is one of the most spoken languages in the world, and 71% agreed or strongly agreed (M = 4.63, SD = 1.65) that they chose this language because they had had it in high school.

A majority of the students taking Spanish agreed or strongly agreed with one of the items in the *Interest* construct. Of the students studying Spanish, 78.7% agreed or strongly agreed (M = 5.02, SD = 1.09) that they were motivated to try the food of the countries where this language is spoken.

A majority of the students taking Spanish agreed or strongly agreed with one of the items in the *Goal* construct. Of the students studying Spanish, 68.7% agreed or strongly agreed (M =

4.91, *SD* = 1.28) that they were motivated to learn Spanish because they planned to travel to countries where this language is spoken.

Table 15

Spanish. Crossloaded items not included in a construct based on factor analysis results

Items	Strongly disagree		Disagree		Slightly disagree		Slightly agree		Agree		Strongly agree			
	F	%	F	%	F	%	F	%	F	%	F	%	*M*	*SD*
PNS6	55	80.9	6	8.8	2	2.9	2	2.9	1	1.5	2	2.9	1.44	1.13
ITINS7	23	33.8	16	23.5	6	8.8	13	19.1	7	10.3	3	4.4	2.62	1.57
ROLE11	3	4.4	2	2.9	6	8.8	25	36.8	19	27.9	13	19.1	4.38	1.23
LIT16	4	5.9	5	7.4	8	11.8	18	26.5	25	36.8	8	11.8	4.16	1.33
KNOW24	2	2.9	2	2.9	9	13.2	20	29.4	22	32.4	13	19.1	4.43	1.20
TIME26	4	5.9	7	10.3	17	25.0	19	27.9	14	20.6	7	10.3	3.78	1.34
NATSP28	0	0	0	0	3	4.4	17	25.0	25	35.3	24	35.3	5.01	0.89
EVENT29	0	0	2	2.9	7	10.3	22	32.4	20	29.4	17	25.0	4.63	1.06
CNS30	1	1.5	2	2.9	4	5.9	16	23.5	27	39.7	18	26.5	4.76	1.09
JOB37	2	2.9	4	5.9	6	8.8	25	36.8	16	23.5	15	22.1	4.38	1.26
JOBR38	5	7.4	10	14.7	8	11.8	20	29.4	11	16.2	14	20.6	3.94	1.54
OUTPR40	8	11.8	7	10.3	15	22.1	17	25.0	11	16.2	10	14.7	3.68	1.54

Table 16

Response frequency and percentage by motivation statement, Spanish

Items	Strongly disagree		Disagree		Slightly disagree		Slightly agree		Agree		Strongly agree			
	F	%	F	%	F	%	F	%	F	%	F	%	*M*	*SD*
Choice														
MOST8	2	1.10	5	2.80	8	4.50	36	20.10	80	44.70	48	26.80	4.85	1.03
LESS9	98	54.70	61	34.10	16	8.90	2	1.10	1	0.60	1	0.60	1.60	0.82
HS10	21	11.70	9	5.00	1	0.60	21	11.70	59	33.00	68	38.00	4.63	1.65
Interest														
NEWS12	32	17.90	43	24.00	31	17.30	43	24.00	19	10.60	11	6.10	3.04	1.48
MOVI13	16	8.90	40	22.30	25	14.00	45	25.10	36	20.10	17	9.50	3.54	1.49
FOOD14	4	2.20	3	1.70	8	4.50	23	12.80	74	41.30	67	37.40	5.02	1.09
MUSC15	10	5.6	8	4.5	11	6.1	53	29.6	55	30.7	42	23.5	4.46	1.34
HIST17	11	6.10	18	10.10	24	13.40	47	26.30	54	30.20	25	14.00	4.06	1.40
TRADI18	6	3.40	7	3.90	19	10.60	45	25.10	47	26.30	55	30.70	4.59	1.31
SOUND19	11	6.10	17	9.50	35	19.60	50	27.90	37	20.70	29	16.20	3.96	1.41
EXACT20	26	14.50	29	16.20	43	24.00	44	24.60	30	16.80	7	3.90	3.25	1.40
INTERS21	13	7.30	22	12.30	24	13.40	46	25.70	43	24.00	31	17.30	3.99	1.49
Effort														
CHAL22	2	1.10	4	2.20	15	8.40	37	20.70	81	45.30	40	22.30	4.74	1.04
PRES23	29	16.20	33	18.40	40	22.30	49	27.40	20	11.20	8	4.50	3.12	1.40
NOTOF25	53	29.60	40	22.30	27	15.10	24	13.40	18	10.10	17	9.50	2.80	1.67
FEEDBC27	1	0.60	3	1.70	11	6.10	42	23.50	89	49.70	33	18.40	4.75	0.92
Travel goals														
TRAV31	5	2.80	10	5.60	2	1.10	39	21.80	46	25.70	77	43.00	4.91	1.28
STUD32	12	6.70	36	20.10	29	16.80	33	18.40	27	15.10	41	22.90	3.84	1.62
LIVE33	10	5.60	18	10.10	15	8.40	45	25.10	42	23.50	49	27.40	4.33	1.49
WORK34	12	6.70	13	7.30	16	8.90	41	22.90	46	25.70	51	28.50	4.39	1.50

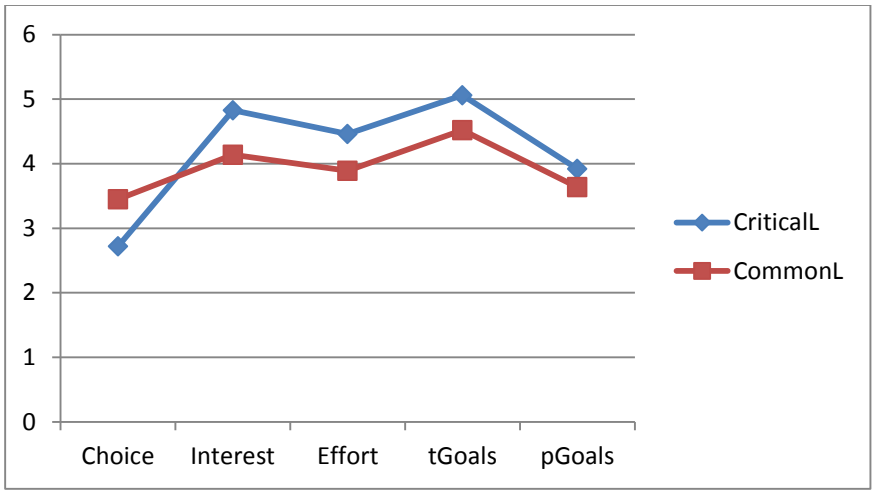
Table 16. Response frequency and percentage by motivation statement, Spanish (Continued)

Items	Strongly disagree		Disagree		Slightly disagree		Slightly agree		Agree		Strongly agree			
	F	%	F	%	F	%	F	%	F	%	F	%	*M*	*SD*
Professional goals														
ACCES35	19	10.60	41	22.90	37	20.70	44	24.60	23	12.80	15	8.40	3.31	1.44
RSCH36	15	8.40	28	15.60	22	12.30	53	29.60	36	20.10	25	14.00	3.79	1.49
STUDR39	40	22.30	43	24.00	20	11.20	27	15.10	18	10.10	31	17.30	3.18	1.80

Summary: For intrinsic motivation, 78.7% of students were interested in food, and 71% decided to learn Spanish because they had had it in high school. For extrinsic motivation, 68.7% of students were motivated by travel possibilities, and 68.1% by instructor's positive feedback.

Descriptive Statistics Results by Constructs for Critical and Commonly Taught Languages

From the data presented in Figure 3 it can be concluded that *Travel goals* and *Interest* constructs motivated critical and commonly taught language learners the most, although the level of motivation was higher for critical language learners. The *Choice* factor motivated both groups of participants the least.



Note: tGoals – Travel goals, pGoals – Professional goals

Figure 3. Comparison by means for critical and commonly taught languages by construct. Critical languages: Choice construct (m = 2.72, sd = 0.80), Interest construct (m = 4.83, sd = .76), Effort construct (m = 4.46, sd = .83), Travel goals construct (m = 5.06, sd = .85), Professional goals (m = 3.92, sd = 1.16). Commonly taught languages: Choice construct (m = 3.45, sd = 0.81), Interest construct (m = 4.14, sd = .98), Effort construct (m = 3.89, sd = .92), Travel goals construct (m = 4.52, sd = 1.13), Professional goals (m = 3.64, sd = 1.17).

Figure 4 showed that critical and commonly taught language learners were more motivated extrinsically than intrinsically.

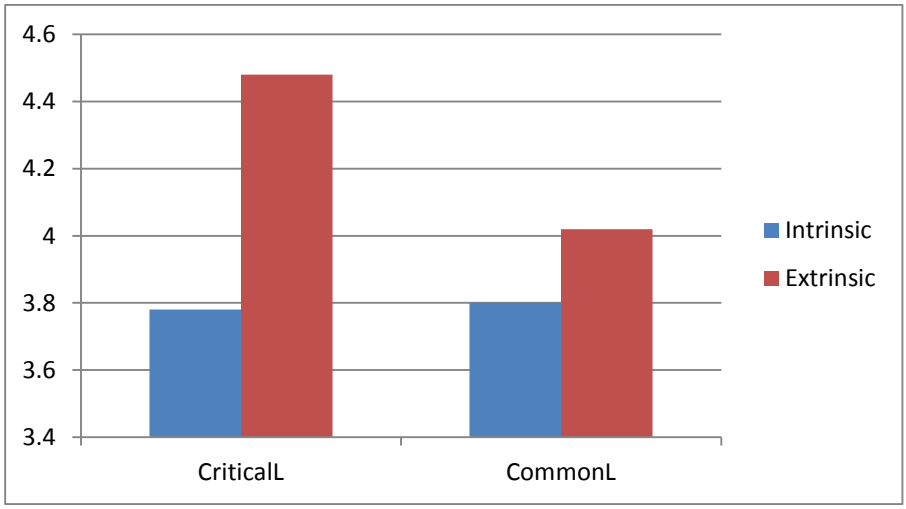


Figure 4. Comparison of means for critical and commonly taught languages by motivation. Critical languages: intrinsic motivation (*m* = 3.78, *sd* = .78), extrinsic motivation (*m* = 4.48, *sd* = .95). Commonly taught languages: intrinsic motivation (*m* = 3.80, *sd* = .09), extrinsic motivation (*m* = 4.02, *sd* = 1.07).

Summary: The results of the descriptive statistics proved that extrinsic motivation was stronger than intrinsic for critical and commonly taught languages. The strongest intrinsic motivational factor was Interest, and the strongest extrinsic motivational factor was Travel goals for both groups of languages.

Independent Sample *T*-test Results

Independent sample *t*-test was used to compare and analyze differences in the intrinsic and extrinsic motivational factors among critical and commonly taught languages students. The data for the three commonly taught language groups (French, Spanish, and German) was combined to determine an overall mean for each item in each construct. Likewise, the scores were combined for the Critical Language group (Russian, Chinese, and Japanese). The results are presented by constructs. Items not included to a construct are shown in Table 18.

Table 17

Independent sample t-test results. Crossloaded items not included to a construct based on factor analysis results

#	Item I am motivated to		*n*	*m*	*SD*	*t*	*df*	*P*
6	My parents/relatives are native speakers of this language.	Common Critical	300 273	1.49 1.43	1.14 1.27	.60	548.30	.547
7	My language teacher or advisor inspired me.	Common Critical	300 273	2.93 2.73	1.59 1.78	1.35	547.66	.178
11	The countries where this language is spoken play an important part in the world.	Common Critical	300 273	4.51 5.16	1.10 1.05	7.24	569.75	.000
16	read literature of countries where this language is spoken.	Common Critical	300 273	3.78 4.74	1.52 1.26	8.30	565.68	.000
24	connect the knowledge from this language course to other disciplines.	Common Critical	300 273	4.28 4.84	1.26 1.07	5.80	568.11	.000
26	devote as much time as possible to home work for this language course.	Common Critical	300 273	3.57 4.24	1.28 1.18	6.57	570.88	.000

Table 17. Independent sample t-test results. Crossloaded items not included to a construct based on factor analysis results (Continued)

	# Item I am motivated to		*n*	*m*	*SD*	*t*	*df*	*P*
28	meet people who are native speakers of this language.	Common Critical	300 273	4.81 5.24	1.11 .84	5.32	551.48	.000
29	participate in cultural and social events in which native speakers of this language are involved.	Common Critical	300 273	4.35 5.07	1.34 1.00	7.32	548.91	.000
30	communicate with native speakers of this language.	Common Critical	300 273	4.64 5.21	1.28 .89	6.19	536.70	.000
37	I can be competitive in the job market.	Common Critical	300 273	4.73 4.72	1.23 1.29	.11	559.05	.912
38	my future job may require me to speak a foreign language.	Common Critical	300 273	4.24 4.75	1.45 1.32	4.44	570.99	.000
40	I like to complete and outperform my classmates in this language.	Common Critical	300 273	3.50 3.81	1.54 1.52	2.42	566.94	.016

Choice Construct. An independent sample *t*-test (two-tailed) was conducted for each item in the *Choice* construct to compare the means of the Commonly Taught Languages group and the Critical Languages group (Table 19). The *t*-value for unequal variances was used.

Table 18

T-test for equality of means for commonly taught vs. critical languages. Choice construct

# Item I chose to learn this language because			*n*	*m*	*SD*	*t*	*df*	*p*
8	It is one of the most spoken languages in the world.	Common Critical	300 273	4.41 3.82	1.28 1.60	4.85	521.87	.000
9	It is one of the less spoken languages in the word.	Common Critical	300 273	1.82 2.34	.91 1.39	5.21	460.47	.000
10	I had it in high school.	Common Critical	300 273	4.12 2.01	1.96 1.70	13.48	571.00	.000

In the *Choice* construct, there was a significant difference in the scores for tree items. The CriticalL group had a higher mean than the CommonTL group on item 9 and a lower mean than the CommonTL group on items 8 and 10.

There was a significant difference in the score for item 8 for CommonTL (M = 4.41, SD = 1.28) and CriticalL (M = 3.82, SD = 1.60), t (521.87) = 4.85, p = .000. There was a significant difference in the score for item 9 for CommonTL (M = 1.82, SD = .91) and CriticalL (M = 2.34, SD =1.39), t (460.47) = 5.211, p = .000. There was a significant difference in the score for item 10 for CommonTL (M =4.12, SD = 1.96) and CriticalL (M = 2.01, SD = 1.78), t (571.00) = 13.48, p = .000.

Summary: Critical language learners decided to learn these languages because they are less spoken in the world. Commonly taught languages learners decided to learn these languages because these languages are the most spoken in the world, and because they had learned these languages in high school.

Interest Construct. An independent sample *t*-test (two-tailed) was conducted for each item in the *Interest* construct to compare the means of the Commonly Taught Languages group and the Critical Languages group. The *t*-value for unequal variances was used.

Table 19

T-test for equality of means for commonly taught vs. critical languages. Interest construct

#	Item I am motivated to		*n*	*m*	*SD*	*t*	*df*	*p*
12	read newspapers or magazines in this language	Common Critical	300 273	3.23 3.98	1.41 1.39	6.39	567.041	.000
13	watch movies made in countries where this language is spoken.	Common Critical	300 273	3.91 4.94	1.43 1.16	9.49	563.86	.000
14	try food of countries where this language is spoken.	Common Critical	300 273	5.05 5.43	1.09 .82	4.82	550.88	.000
15	learn more about music of countries where this language is spoken.	Common Critical	300 273	4.55 4.92	1.28 1.19	3.64	570.73	.000
17	learn history of countries where this language is spoken.	Common Critical	300 273	4.30 5.12	1.39 1.03	8.03	549.86	.000
18	learn culture, and traditions of countries where this language is spoken.	Common Critical	300 273	4.79 5.42	1.25 .88	7.04	538.01	.000
19	learn this language because I like how it sounds.	Common Critical	300 273	4.22 4.67	1.38 1.30	4.05	570.17	.000
20	participate in extra curricular cultural activities for this course.	Common Critical	300 273	3.38 4.37	1.36 1.31	8.83	569.20	.000
21	learn this language just because it is interesting even if I will not apply it in my future career.	Common Critical	300 273	4.22 4.67	1.46 1.45	3.67	566.43	.000

In the *Interest* construct, there was a significant difference in the scores for all nine items. The CriticalL group had a higher mean than the CommonTL group on all ten items. There was a significant difference in the score for item 12 for CommonTL (M = 3.23, SD = 1.41) and CriticalL (M = 3.98, SD = 1.39), t (567.04) = 6.39, p = .000. There was a significant difference in the score for item 13 for CommonTL (M = 3.91, SD = 1.43) and CriticalL (M = 4.94, SD = 1.16),

t (563.861) = 9.49, *p* = .000. There was a significant difference in the score for item 14 for CommonTL (*M* = 5.05, *SD* = 1.09) and CriticalL (*M* = 5.43, *SD* = .82), *t* (550.88) = 4.82, *p* = .000. There was a significant difference in the score for item 15 for CommonTL (*M* = 4.55, *SD* = 1.28) and CriticalL (*M* = 4.92, *SD* = 1.19), *t* (570.73) = 3.64, *p* = .000. There was a significant difference in the score for item 17 for CommonTL (*M* = 4.30, *SD* = 1.39) and CriticalL (*M* = 5.12, *SD* = 1.03), *t* (549.86) = 8.03, *p* = .000. There was a significant difference in the score for item 18 for CommonTL (*M* = 4.79, *SD* = 1.25) and CriticalL (*M* = 5.42, *SD* = .88), *t* (538.01) = 7.04, *p* = .000. There was a significant difference in the score for item 19 for CommonTL (*M* = 4.22, *SD* = 1.38) and CriticalL (*M* = 4.67, *SD* = 1.30), *t* (570.17) = 4.05, *p* = .000. There was a significant difference in the score for item 20 for CommonTL (*M* = 3.38, *SD* = 1.36) and CriticalL (*M* = 4.37, *SD* = 1.31), *t* (569.20) = 8.83, *p* = .000. There was a significant difference in the score for item 21 for CommonTL (*M* =4.22, *SD* = 1.46) and CriticalL (*M* = 4.67, *SD* = 1.45), *t* (566.43) = 3.67, *p* = .000.

Summary: The independent *t*-test conducted for the *Interest* construct showed that critical languages students expressed more interest in all items of this construct than students learning commonly taught languages. Compared to commonly taught language students, critical language students expressed more interest in watching movies made in target language countries, in leaning the history and traditions of target language countries, and in participating in extracurricular cultural activities.

Effort Construct. An independent sample *t*-test (two-tailed) was conducted for each item in the *Effort* construct to compare the means of the Common TL group and the CriticalL group. The *t*-value for unequal variances was used.

Table 20

T-test for equality of means for commonly taught vs. critical languages. Effort construct

# Item	I am motivate to		*n*	*m*	*SD*	*t*	*df*	*p*
22	handle the challenge of learning a foreign language.	Common Critical	300 273	4.84 5.37	.99 .74	7.29	548.99	.000
23	volunteer to make additional presentations for this language course.	Common Critical	300 273	3.17 3.97	1.32 1.31	7.35	566.59	.000
25	learn a language that is not offered at my university/college.	Common Critical	300 273	3.00 3.58	1.64 1.76	4.10	555.61	.000
27	succeed in the language learning when I get positive feedback from the instructor.	Common Critical	300 273	4.86 5.14	.92 .80	3.88	569.49	.000

In the *Effort* construct, there was a significant difference in the scores for all five items. The CriticalL group had a higher mean than the CommonTL group on all items. There was a significant difference in the score for item 22 for CommonTL (M = 4.84, SD = .99) and CriticalL (M = 5.37, SD = .74), t (548.99) = 7.29, p = .000. There was a significant difference in the score for item 23 for CommonTL (M = 3.17, SD = 1.32) and CriticalL (M = 3.97, SD = 1.31), t (566.59) = 7.35, p = .000. There was a significant difference in the score for item 24 for CommonTL (M = 4.28, SD = 1.26) and CriticalL (M = 4.84, SD = 1.07), t (568.11) = 5.80, p = .000. There was a significant difference in the score for item 25 for CommonTL (M = 3.00, SD = 1.64) and CriticalL (M = 3.58, SD = 1.76), t (555.61) = 4.10, p = .000. There was a significant difference in the score for item 27 for CommonTL (M = 4.86, SD = .92) and CriticalL (M = 5.14, SD = .80), t (569.49) = 3.88, p = .000.

Summary: The independent *t*-test conducted for the *Efforts* construct showed that critical language students expressed a higher motivation in all items of this construct than students

learning commonly taught languages. Compared to commonly taught language students, critical language students were more motivated to handle challenges of learning a foreign language, make additional presentations for this language course, and make additional efforts to learn a language even if it was not offered at their educational institution.

Travel Goals Construct. An independent sample *t*-test (two-tailed) was conducted for each item in the *Travel Goals* construct to compare the means of the Commonly Taught Languages group and the Critical Languages group. The *t*-value for unequal variances was used.

Table 21

T-test for equality of means for commonly taught vs. critical languages. Travel goals construct

#	Item I am motivated to learn this language because		*n*	*m*	*SD*	*t*	*df*	*p*
31	I plan to travel to a country where this language is spoken	Common Critical	300 273	5.07 5.35	1.17 1.00	3.08	568.82	.002
32	I want to study in a country where this language is spoken	Common Critical	300 273	3.99 4.79	1.56 1.31	6.68	567.26	.000
33	it will enable me to live in different countries.	Common Critical	300 273	4.40 4.89	1.44 1.15	4.53	561.55	.000
34	it will enable me to work in different countries.	Common Critical	300 273	4.50 5.04	1.43 1.10	5.10	555.24	.000

In the *Travel Goals* construct, there was a significant difference in the scores for four items. The CriticalL group had a higher mean than the CommonTL group on all four items. There was a significant difference in the score for item 31 for CommonTL (M = 5.07, SD = 1.17) and CriticalL (M = 5.35, SD = 1.00), t (568.82) = 3.08, p = .002. There was a significant difference in the score for item 32 for CommonTL (M = 3.99, SD = 1.56) and CriticalL (M = 4.79, SD = 1.31), t (567.26) = 6.68, p = .000. There was a significant difference in the score for item 33 for CommonTL (M = 4.40, SD = 1.44) and CriticalL (M = 4.89, SD = 1.15), t (561.55) =

4.53, p = .000. There was a significant difference in the score for item 34 for CommonTL (M = 4.50, SD = 1.43) and CriticalL (M = 5.04, SD = 1.10), t (555.24) = 5.10, p = .000.

Summary: The independent *t*-test conducted for the *Travel Goals* construct showed that critical language students expressed a higher motivation in all four items of this construct than students learning commonly taught languages. Compared to commonly taught language students, critical language students were more motivated by long-term travel related to study and work in countries where this language is spoken.

Professional Goals Construct. An independent sample *t*-test (two-tailed) was conducted for each item in the *Professional Goals* construct to compare the means of the Commonly Taught Languages group and the Critical Languages group. The *t*-value for unequal variances was used. In the *Professional goals* construct, there was a significant difference in the scores for one item. The CriticalL group had a higher mean than the CommonTL group on this item. There was a significant difference in the score for item 35 for CommonTL (M = 3.34, SD = 1.46) and CriticalL (M = 3.59, SD = 1.45), t (566.94) = 2.11, p = .035.

Summary: The independent *t*-test conducted for the *Professional goals* construct showed that critical language students expressed a higher motivation in one item of this construct than students learning commonly taught languages. Compared to commonly taught language students, critical language students were more motivated to learn the language to apply it in their field of study.

Table 22

T-test for equality of means for commonly taught vs. critical languages. Professional goals construct

#	Item I am motivated to learn this language because		*n*	*m*	*SD*	*t*	*df*	*p*
35	it will give me access to the reading material in my field of study.	Common Critical	300 273	3.34 3.59	1.46 1.45	2.11	566.94	.035
36	it enables me to communicate with fellow students/researchers in this language in my field of study.	Common Critical	300 273	3.66 3.82	1.47 1.44	1.29	568.35	.197
39	it is required for my further studies (or my major).	Common Critical	300 273	3.32 3.51	1.85 1.79	1.22	568.76	.223

Self-efficacy Construct. An independent sample *t*-test (two-tailed) was conducted for each item in the *Self-efficacy* construct to compare the means of the Commonly Taught Languages group and the Critical Languages group. The *t*-value for unequal variances was used. In the *Self-efficacy* construct, there was a significant difference in the scores for seven items. The CriticalL group had a higher mean than the CommonTL group on items 42, 45, 46, 47. The CriticalL group had a lower mean than the CommonTL group on items 41, 43, 44.

Table 23

T-test for equality of means for commonly taught vs. critical languages. Self-efficacy construct

# Item			*n*	*m*	*SD*	*t*	*df*	*p*
41	I am confident that I can maintain a basic conversation with my friends/international students who are native speakers of this language.	Common Critical	300 273	57.13 51.23	23.73 25.53	2.86	557.96	.004*
42	I feel confident I will be able to study in a country where this language is spoken.	Common Critical	300 273	50.37 59.08	25.92 27.49	3.90	555.44	.000
43	I feel confident in written communication (e.g. e-mails) in this language).	Common Critical	300 273	60.03 53.52	24.16 24.87	3.18	562.43	.002
44	I feel confident I can read in this language.	Common Critical	300 273	66.97 55.71	22.18 24.13	5.79	553.49	.000
45	I am confident I will be able to speak this language fluently in the future.	Common Critical	300 273	59.23 73.53	29.28 23.73	6.45	563.64	.000
46	I am confident I speak well in this language despite the differences and difficulties in pronunciation of this language.	Common Critical	300 273	59.15 64.74	25.90 23.68	2.70	570.99	.007
47	I am confident I understand most of the grammatical material of this language presented in this class.	Common Critical	300 273	61.47 68.64	24.25 22.46	3.68	570.81	.000
48	I am confident that I can read in this language despite the non-Latin alphabet.	Common Critical	300 273	76.21	20.95			
49	I am confident that I can write in this language despite the non-Latin alphabet.	Common Critical	300 273	75.59	22.14			

There was a significant difference in the score for item 41 for CommonTL (*M* =57.13, *SD* = 23.73) and CriticalL (*M* = 51.23, *SD* = 25.53), *t* (557.96) = 2.86, *p* = .004. There was a significant difference in the score for item 42 for CommonTL (*M* = 50.37, *SD* = 25.92) and

CriticalL (*M* = 59.08, *SD* = 27.489), *t* (555.44) = 3.90, *p* = .000. There was a significant difference in the score for item 43 for CommonTL (*M* = 60.03, *SD* = 24.16) and CriticalL (*M* = 53.52, *SD* = 24.87), *t* (562.43) = 3.176, *p* = .000. There was a significant difference in the score for item 44 for CommonTL (*M* = 66.97, *SD* = 22.18) and CriticalL (*M* = 55.71, *SD* = 24.13), *t* (553.49) = 5.79, *p* = .000. There was a significant difference in the score for item 45 for CommonTL (*M* = 59.23, *SD* = 29.28) and CriticalL (*M* = 73.53 , *SD* = 23.73), *t* (563.64) = 6.45, *p* = .000. There was a significant difference in the score for item 46 for CommonTL (*M* = 59.15, *SD* = 25.90) and CriticalL (*M* = 64.74, *SD* = 23.68), *t* (570.99) = 2.70, *p* = .000. There was a significant difference in the score for item 47 for CommonTL (*M* = 61.47, *SD* = 24.25) and CriticalL (*M* = 68.64, *SD* = 22.46), *t* (570.812) = 3.68, *p* = .000.

Summary: The independent *t*-test conducted for the *Self-efficacy* construct showed that critical languages students expressed a higher confidence in four items of this construct, while students learning commonly taught languages demonstrated a higher confidence in three items. Students studying commonly taught languages were more confident that they could read, write and maintain a basic conversation in a target language. However, critical languages students felt more confident that they could study in a target language country, that they understood most of the grammar material presented in class, and that in the future they would be able to speak the target language fluently.

T-test Results by Constructs. An independent sample *t*-test (two-tailed) was conducted for each construct to compare the means of the Commonly Taught Languages group and the Critical Languages group. The *t*-value for unequal variances was used.

There was a significant difference in the scores for all five constructs. The CriticalL group had a higher mean than the CommonTL group for Interest, Effort, Travel Goals and

Professional Goals constructs. The CriticalL group had a lower mean than the CommonTL group for Choice Construct.

Table 24

T-test for equality of means for commonly taught vs. critical languages by motivational constructs

		n	*m*	*SD*	*t*	*df*	*p*
Choice	Common	300	3.45	0.81	10.87	568.069	.000
	Critical	273	2.72	0.79			
Interest	Common	300	4.14	0.98	9.39	555.943	.000
	Critical	273	4.83	0.76			
Effort	Common	300	3.89	0.92	7.86	570.904	.000
	Critical	273	4.46	0.83			
TravelGoals	Common	300	4.52	1.13	6.41	552.012	.000
	Critical	273	5.06	0.85			
ProfGoals	Common	300	3.64	1.17	2.85	566.464	.004
	Critical	273	3.92	1.16			

There was a significant difference in the Choice construct for CommonTL (M =3.45, SD = 0.81) and CriticalL (M = 2.72, SD = 0.79), t (568.69) = 10.87, p = .000. There was a significant difference in the score for Interest construct for CommonTL (M = 4.14, SD = 0.98) and CriticalL (M = 4.83, SD = 0.76), t (555.943) = 3.39, p = .000. There was a significant difference in the score for Effort construct for CommonTL (M = 3.89, SD = 0.92) and CriticalL (M = 4.46, SD = 0.83), t (570.904) = 7.86, p = .000. There was a significant difference in the score for Travel Goals construct for CommonTL (M = 4.52, SD = 1.13) and CriticalL (M = 5.06, SD = 0.85), t (552.012) = 6.41, p = .000. There was a significant difference in the score for Professional Goals construct for CommonTL (M = 3.64, SD = 1.17) and CriticalL (M = 3.92, SD =1.16), t (566.464) = 2.85, p = .004.

Figure 5 presents the comparison of means of the *Choice*, *Interest*, *Effort*, *Travel goals*, and *Professional goals* constructs for critical and commonly taught languages.

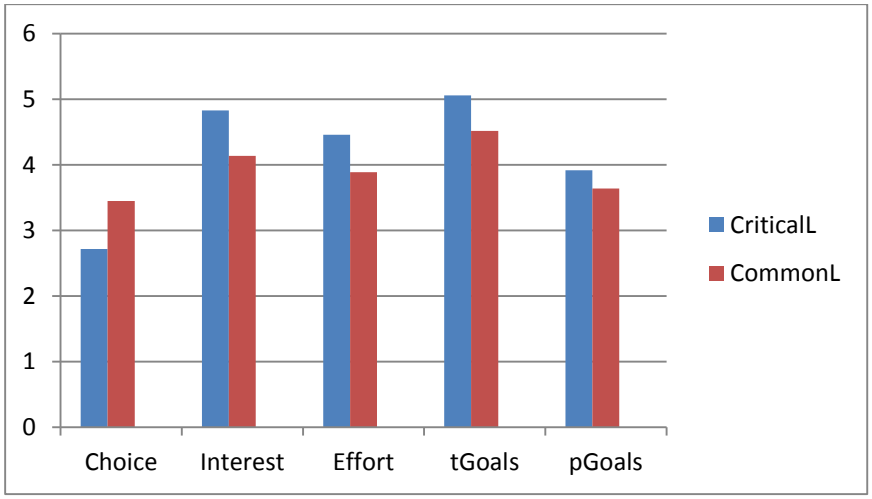


Figure 5. Comparison of means of Independent sample t-test for critical and commonly taught languages by constructs

Table 26 and Figure 6 show that critical and commonly taught language learners were motivated more extrinsically than intrinsically.

Table 25

T-test for equality of means for commonly taught vs. critical languages by Intrinsic and Extrinsic motivation

		n	*M*	*SD*	*t*	*df*	*p*
Intrinsic	CommonL	300	3.80	0.90	10.13	562.0	.000
motivation	CriticalL	273	3.78	1.07			
Extrinsic	CommonL	300	4.02	0.78	5.71	599.79	.000
motivation	CriticalL	273	4.48	0.95			

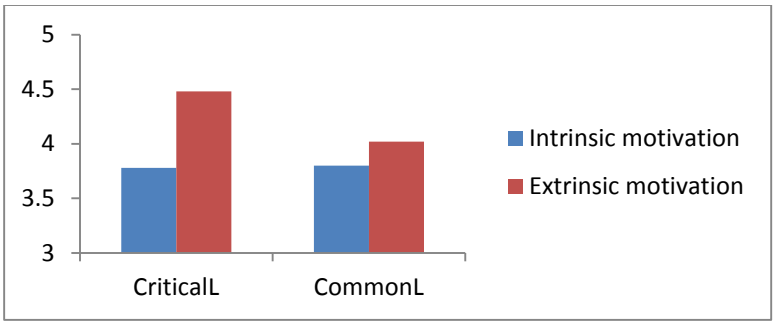


*Figure 6.*T-test for equality of means for commonly taught vs. critical languages by motivation.

Summary: The independent *t*-test conducted for all constructs for critical and commonly taught languages proved that the extrinsic motivational constructs *Travel goals* and *Effort* as well as the intrinsic motivational construct *Interest* were stronger for both groups of languages, commonly taught languages and critical languages. However, all the above mentioned extrinsic and intrinsic motivational factors were stronger for critical languages (Table 26 , Figure 6). The results also proved that extrinsic motivational factors prevailed over intrinsic for critical and commonly taught languages; and there was no large difference in intrinsic motivation for both groups of languages.

One-way ANOVA Results

One-way ANOVA and Tukey honesty significant tests were used to determine if there were any significant differences among means of all the languages analyzed in this study. The results are presented by a group of languages, critical and commonly taught languages, and by constructs. Only the items that showed significance between groups were reported.

Table 26

One-way ANOVA, critical languages. Crossloaded items not included to a construct based on factor analysis results

Item # I chose to learn this language because		C	J	R	Mean difference	*p* value
6. My parents/relatives are native speakers of this language.	*N*	104	83	86	C/J: .25	C /J: .368
	M	1.42	1.67	1.21	C/R: .21	C/R: .478
	SD	1.31	1.56	.80	J/R: .47	J/R: .046
7. My language teacher or advisor inspired me.	*N*	104	83	86	C/J: .65	C/J: .035
	M	3.12	2.47	2.52	C/R: .59	C/R: .056
	SD	1.89	1.61	1.73	J/R: .05	J/R: .979
11. The countries where this language is spoken play an important part in the world.	*N*	104	83	86	C/J: .50	C/J: .003
	M	5.44	4.94	5.03	C/R: .41	C/R: .019
	SD	1.00	.98	1.10	J/R: .10	J/R: .818
16. read literature of countries where this language is spoken.	*N*	104	83	86	C/J: 1.23	C/J: .000
	M	3.99	5.22	5.19	C/R: 1.20	C/R: .000
	SD	1.33	1.00	.91	J/R: .03	J/R: .982
30. communicate with native speakers of this language	*N*	104	83	86	C/J: .08	C/J: .815
	M	5.24	5.29	5.20	C/R: .12	C/R: .644
	SD	.81	.80	.91	J/R: .20	J/R: .327
37. I can be competitive in the job market.	*N*	104	83	86	C/J: .90	C/J: .000
	M	5.19	4.29	4.57	C/R: .62	C/R: .002
	SD	1.14	1.49	1.07	J/R: .28	J/R: .306
40. I like to complete and outperform my classmates in this language.	*N*	104	83	86	C/J: .35	C/J: .253
	M	3.93	3.58	3.87	C/R: .06	C/R: .960
	SD	1.51	1.51	1.54	J/R: .29	J/R: 421

Critical Languages. One-way ANOVA and Tukey honestly significant test were used to compare the means of the three critical languages to determine if significant differences existed among the languages. Only the items that showed significance between groups were reported.

Choice construct. For the *Choice* construct, the one-way analysis of variances showed a significant difference on items 8, 9, and 10.

Table 27

ANOVA among critical languages by reason to learn the language

Item # I chose to learn this language because		C	J	R	Mean difference	*p* value
8. It is one of the most spoken languages in the world.	*N*	104	83	86	C/J: 2.54	C/J: .000
	M	5.15	2.61	3.36	C/R: 1.79	C/R: .000
	SD	1.04	1.11	1.35	J/R: .75	J/R: .000
9. It is one of the less spoken languages in the word.	*N*	104	83	86	C/J: 1.70	C/J: .000
	M	1.39	3.10	2.74	C/R: 1.35	C/R: .000
	SD	.85	1.33	1.34	J/R: .35	J/R: .127
10. I had it in high school.	*N*	104	83	86	C/J: .11	C/J: .900
	M	2.42	2.31	1.23	C/R: 1.19	C/R: .000
	SD	2.05	1.91	.79	J/R: 1.08	J/R: .000

Notes: C – Chinese, J – Japanese, R – Russian.

On item 8, the one-way analysis of variances showed a significant difference between Chinese students (M = 5.15, SD = 1.04) and Japanese students (M = 2.61, SD = 1.11) at the p = .000 level; between Chinese students (M = 5.15, SD = 1.04) and Russian students (M = 3.36, SD = 1.35) at the p = .000 level; and between Japanese students (M = 2.61, SD = 1.11) and Russian students (M = 3.36, SD = 1.35) at p = .000 at the p = .000 level. On item 9 a significant difference was found between Chinese students (M = 1.39, SD = .85) and Japanese students (M = 3.10, SD = 1.33) at the p = .000 level; and between Chinese students (M = 1.39, SD = .85) and Russian students (M = 2.74, SD = 1.34) at the p = .000 level. On item 10, a significant difference was found between Chinese students (M = 2.42, SD = 2.05) and Russian students (M = 1.23, SD = .79) at the p = .000 level; and Japanese students (M = 2.31, SD = 1.91) and Russian students (M = 1.23, SD = .79) at p = .000 at the p = .000 level.

Summary: Chinese students were motivated to learn the language because it is one of the most spoken languages in the world, and Japanese and Russian students chose their languages because they believed that these languages are less spoken in the world.

Interest construct. For the *Interest* construct the one way analysis of variances showed a significant difference on items 12, 13, 14, 15, 17, 18, 19, 20 and 21.

Table 28

ANOVA among critical languages by interest to learn the language

Item # I am motivated to		C	J	R	Mean difference	*p* value
12. read newspapers or magazines in this language.	*N*	104	83	86	C/J: 1.00	C/J: .000
	M	3.41	4.41	4.24	C/R: .83	C/R: .000
	SD	1.43	1.36	1.14	J/R: .17	J/R: .696
13. watch movies made on countries where this language is spoken.	*N*	104	83	86	C/J: .98	C/J: .000
	M	3.54	5.52	4.86	C/R: .32	C/R: .109
	SD	1.23	.82	1.15	J/R: .66	J/R: .000
14. try food of countries where this language is spoken.	*N*	104	83	86	C/J: .12	C/J: .599
	M	5.48	5.60	5.21	C/R: .27	C/R: .055
	SD	.710	.72	.97	J/R: .39	J/R: .005
15. learn more about music of countries where this language is spoken.	*N*	104	83	86	C/J: .74	C/J: .000
	M	4.55	5.29	5.02	C/R: 48	C/R: .014
	SD	1.29	.96	1.16	J/R: .27	J/R: .295
17. Learn history of countries where this language is spoken.	*N*	104	83	86	C/J: .30	C/J: .118
	M	4.89	5.19	5.33	C/R: .43	C/R: .011
	SD	1.03	1.11	.91	J/R: .13	J/R: .675
18. learn culture, and traditions of countries where this language is spoken.	*N*	104	83	86	C/J: .30	C/J: .051
	M	5.29	5.59	5.43	C/R: .14	C/R: .507
	SD	.99	.75	.83	J/R: .16	J/R: .460
19. learn this language because I like how it sounds.	*N*	104	83	86	C/J: 1.03	C/J: .000
	M	4.12	5.14	4.88	C/R: .77	C/R: 000
	SD	1.38	1.00	1.23	J/R: .26	J/R: 353
20. participate in extra curricular cultural activities for this course.	*N*	104	83	86	C/J: .46	C/J: .046
	M	4.14	4.60	4.42	C/R: .27	C/R: .319
	SD	1.42	1.28	1.17	J/R: .18	J/R: .630
21. learn this language just because it is interesting even if I will not apply it in my future career.	*N*	104	83	86	C/J: .63	C/J: .009
	M	4.29	4.92	4.88	C/R: .60	C/R: .012
	SD	1.66	.32	1.20	J/R: .03	J/R: .988

On item 12, a significant difference was found between Chinese students (M = 3.41, SD = 1.43) and Japanese students (M = 4.41, SD = 1.36) at the p = .000 level; and between Chinese

students (*M* = 3.41, *SD* = 1.43) and Russian students (*M* = 4.24, *SD* = 1.14) at the *p* = .000 level. On item 13 a significant difference was found between Chinese students (*M* = 3.54, *SD* = 1.23) and Japanese students (*M* = 5.52, *SD* = .82) at the *p* = .000 level; and between Japanese students (*M* = 5.52, *SD* = .82) and Russian students (*M* = 4.86, *SD* = 1.15) at the *p* = .000 level. On item 14, a significant difference was found between Japanese students (*M* = 5.60, *SD* = .72) and Russian students (*M* = 5.21, *SD* = .97) at the *p* = .005 level. On item 15, a significant difference was found between Chinese students (*M* = 4.55, *SD* = 1.29) and Japanese students (*M* = 5.29, *SD* = .96) at the *p* = .000 level; and between Chinese students (*M* = 4.55, *SD* = 1.29) and Russian students (*M* = 5.02, *SD* = 1.16) at the *p* = .014 level. On item 17, a significant difference was found between Chinese students (*M* = 4.89, *SD* = 1.03) and Russian students (*M* = 5.33, *SD* = .91) at the *p* = .011 level. On item 19, a significant difference was found between Chinese students (*M* = 4.12, *SD* = 1.38) and Japanese students (*M* = 5.14, *SD* = 1.00) at the *p* = .000 level; and between Chinese students (*M* = 4.12, *SD* = 1.38) and Russian students (*M* = 4.88, *SD* = 1.23) at the *p* = .000 level. On item 20, a significant difference was found between Chinese students (*M* = 4.14, *SD* = 1.42) and Japanese students (*M* = 4.60, *SD* = 1.28) at the *p* = .046 level. On item 21, 1a significant difference was found between Chinese students (*M* = 4.29, *SD* = 1.66) and Japanese students (*M* = 4.92, *SD* = 1.32) at the *p* = .009 level; and between Chinese students (*M* = 4.29, *SD* = 1.66) and Russian students (*M* = 4.88, *SD* = 1.20) at the *p* = .012 level.

Summary: All critical language learners were equally interested in learning more about culture and traditions, and trying food of a target language country. Among critical language learners of this study, Japanese learners were more interested than Chinese and Russian learners in watching movies and listen to music of a target language country. Japanese and Russian

learners were more interested compared to Chinese learners in learning the history of a target language country.

Travel goals construct. For the *Travel goals* construct, the one way analysis of variances showed a significant difference on items 31, 32, and 34.

On item 31, a significant difference was found between Japanese students (M = 5.66, SD = .77) and Russian students (M = 5.05, SD = 1.14) at the p = .000 level. On item 32, a significant difference was found between Chinese students (M = 4.88, SD = 1.26) and Russian students (M = 4.42, SD = 1.32) at the p = .035 level; and between Japanese students (M = 5.06, SD = 1.26) and Russian students (M = 4.42, SD = 1.32) at the p = .004 level. On item 34, a significant difference was found Chinese students (M = 5.23, SD = 1.09) and Russian students (M = 4.81, SD = 1.09) at the p = .024 level.

Table 29

ANOVA between critical languages by Travel goals to learn the language

Item # I am motivated to learn this language because		C	J	R	Mean difference	*p* value
31. I plan to travel to a country where this language is spoken	*N*	104	83	86	C/J: .31	C/J: .082
	M	5.36	5.66	5.05	C/R: .31	C/R: .075
	SD	.97	.77	1.14	J/R: .62	J/R: .000
32. I want to study in a country where this language is spoken	*N*	104	83	86	C/J: .18	C/J: .622
	M	4.88	5.06	4.42	C/R: .47	C/R: .035
	SD	1.26	1.26	1.32	J/R: .64	J/R: .004
33. it will enable me to live in different countries.	*N*	104	83	86	C/J: .17	C/J: 585
	M	5.06	4.89	4.70	C/R: .36	C/R: .079
	SD	1.16	1.17	1.10	J/R: .19	J/R: .512
34. it will enable me to work in different countries.	*N*	104	83	86	C/J: .18	C/J: .490
	M	5.23	5.05	4.81	C/R: .42	C/R: .024
	SD	1.09	1.08	1.09	J/R: .23	J/R: .342

Summary: In the group of critical language learners, Japanese learners were the most interested in traveling and studying in a target language country. Chinese learners believed that the knowledge of Chinese would enable them to live and work in different countries, and Russian learners were less motivated to learn Russian by the possibility of working in different countries.

Commonly Taught Languages. One-way ANOVA was run to determine if there is a significant difference among the means of the group of commonly taught languages. Only the items that showed significance between groups were reported.

Table 30

One-way ANOVA, commonly taught languages. Crossloaded items not included to a construct based on factor analysis results

Item # I chose to learn this language because		F	G	S	Mean difference	*p* value
6. My parents/relatives are native speakers of this language.	*N*	68	53	179	F/G: .80	F/G: .000
	M	1.44	2.25	1.29	F/S: .15	F/S: .595
	SD	1.13	1.54	.90	G/S: .96	G/S: .000
7. My language teacher or advisor inspired me.	*N*	68	53	179	F/G: .29	F/G: .583
	M	2.62	2.91	3.04	F/S: .43	F/S: .143
	SD	1.57	1.55	1.60	G/S: .14	G/S:.841
11. The countries where this language is spoken play an important part in the world.	*N*	68	53	179	F/G: .41	F/G: .102
	M	4.38	4.79	4.48	F/S: .10	F/S: .803
	SD	1.23	1.12	1.02	G/S: .31	G/S: .162
16. read literature of countries where this language is spoken.	*N*	68	53	179	F/G: .25	F/G: .614
	M	4.16	4.42	3.44	F/S: .72	F/S: .002
	SD	1.33	1.41	1.53	G/S: .97	G/S: .000
24.connect the knowledge from this language course to other disciplines.	*N*	68	53	179	F/G: .22	F/G: .613
	M	4.43	4.64	4.12	F/S: .40	F/S: .190
	SD	1.20	1.18	1.28	G/S: .52	G/S: .020
28. meet people who are native speakers of this language.	*N*	68	53	179	F/G: .10	F/G: .876
	M	5.01	5.11	4.64	F/S: .38	F/S: .043
	SD	.89	.97	1.20	G/S: .48	G/S: .016

Table 30. One-way ANOVA, commonly taught languages. Crossloaded items not included to a construct based on factor analysis results (Continued)

Item # I chose to learn this language because		F	G	S	Mean difference	*p* value
29. participate in cultural and social events in which native speakers of this language are involved.	*N*	68	53	179	F/G: .09	F/G: .935
	M	4.63	4.55	4.18	F/S: .45	F/S: .050
	SD	1.06	1.29	1.43	G/S: .36	G/S:.192
30. communicate with native speakers of this language.	*N*	68	53	179	F/G: .18	F/G: .722
	M	4.76	4.94	4.51	F/S: .26	F/S: .333
	SD	1.09	1.13	1.36	G/S: .44	G/S: .074
37. I can be competitive in the job market.	*N*	68	53	179	F/G: .17	F/G: .737
	M	4.38	4.55	4.92	F/S: .54	F/S: .005
	SD	1.25	1.26	1.17	G/S: .38	G/S: .119
40. I like to complete and outperform my classmates in this language.	*N*	68	53	179	F/G: .28	F/G: .581
	M	3.68	3.40	3.46	F/S: .22	F/S: .579
	SD	1.54	1.60	1.52	G/S: .06	G/S: .964

Notes: F – French, G – German, S – Spanish.

Choice construct. For the *Choice* construct, the one-way analysis of variances showed a significant difference on items 8, 9, and10.

Table 31

ANOVA among common languages by reason to learn the language

Item # I chose to learn this language because		F	G	S	Mean difference	*p* value
8. It is one of the most spoken languages in the world.	*N*	68	53	179	F/G: .87	F/G: .000
	M	4.13	3.26	4.85	F/S: .72	F/S: .000
	SD	1.27	1.29	1.03	G/S: 1.59	G/S: .000
9. It is one of the less spoken languages in the word.	*N*	68	53	179	F/G: .62	F/G: .000
	M	1.87	2.49	1.60	F/S: .26	F/S: .075
	SD	.75	1.05	.82	G/S: .89	G/S: .000
10. I had it in high school.	*N*	68	53	179	F/G: .16	F/G: .888
	M	3.29	3.45	4.63	F/S: 1.34	F/S: .000
	SD	2.14	2.14	1.65	G/S: 1.18	G/S: .000

Notes: F – French, G – German, S – Spanish.

On item 8, a significant difference was found between French students (M = 4.13, SD = 1.27) and German students (M = 3.26, SD = 1.29) at the p = .000 level; between French students

(*M* = 4.13, *SD* = 1.27) and Spanish students (*M* = 4.85, *SD* = 1.03) at the *p* = .000 level; and between German students (*M* = 3.26, *SD* = 1.29) and Spanish students (*M* = 4.85, *SD* = 1.03) at *p* = .000. On Item 9, the one-way analysis of variances showed a significant difference between French students (*M* = 1.87, *SD* = .75) and German students (*M* =2.49, *SD* = 1.05) at the *p* = .000 level; and between German students (*M* =2.49, *SD* = 1.05) and Spanish students (*M* = 1.60, *SD* = .82) at the *p* = .000 level. On item 10, a significant difference was found between French students (*M* = 3.29, *SD* = 2.14) and Spanish students (*M* = 4.63, *SD* = 1.65) at the *p* = .000 level; and between German students (*M* = 3.45, *SD* = 2.14) and Spanish students (*M* = 4.63, *SD* = 1.65) at the *p* = .000 level.

Summary: Spanish learners chose to learn this language because Spanish is one of the most spoken languages in the world, and because they had learned it in high school.

Interest construct. For the *Interest* construct the one-way analysis of variances showed a significant difference on items 12, 13, 16, 17, 18, 19, and 21.

Table 32

ANOVA among common languages by interest to learn the language

Item # I am motivated to		F	G	S	Mean difference	*p* value
12. read newspapers or magazines in this language.	*N*	68	53	179	F/G: .16	F/G: .800
	M	3.44	3.60	3.04	F/S: .40	F/S: .108
	SD	1.31	1.18	1.48	G/S: .57	G/S: .027
13. watch movies made on countries where this language is spoken.	*N*	68	53	179	F/G: .31	F/G: .440
	M	4.59	4.28	3.54	F/S: 1.05	F/S: 1.000
	SD	1.04	1.26	1.49	G/S: .75	G/S:.001
14. try food of countries where this language is spoken.	*N*	68	53	179	F/G: .17	F/G: .660
	M	5.01	5.19	5.02	F/S: .00	F/S: .000
	SD	1.11	1.06	1.09	G/S: .17	G/S: .573
15. learn more about music of countries where this language is spoken.	*N*	68	53	179	F/G: .04	F/G: .987
	M	4.56	4.70	4.46	F/S: .20	F/S: .506
	SD	1.11	1.30	1.34	G/S:.24	G/S: .456
17. Learn history of countries where this language is spoken.	*N*	68	53	179	F/G: .23	F/G: .617
	M	4.56	4.79	4.06	F/S: .50	F/S: .029
	SD	1.38	1.20	1.40	G/S: .73	G/S: .002
18. learn culture, and traditions of countries where this language is spoken.	*N*	68	53	179	F/G: .51	F/G: .060
	M	4.87	5.38	4.59	F/S: .28	F/S: .253
	SD	1.18	.90	1.31	G/S: .79	G/S: .000
19. learn this language because I like how it sounds.	*N*	68	53	179	F/G: .76	F/G: .006
	M	4.93	4.17	3.96	F/S: .97	F/S: .000
	SD	1.08	1.31	1.41	G/S: .21	G/S: .573
20. participate in extra curricular cultural activities for this course.	*N*	68	53	179	F/G: .03	F/G: .992
	M	3.57	3.60	3.25	F/S: .33	F/S: .208
	SD	1.25	1.34	1.40	G/S: 36	G/S: .212
21. learn this language just because it is interesting even if I will not apply it in my future career.	*N*	68	53	179	F/G: .36	F/G: .352
	M	4.72	4.36	3.99	F/S: .73	F/S: .001
	SD	1.24	1.44	1.49	G/S: .37	G/S: .225

On item 12, the one-way analysis of variances showed a significant difference between German students (M =3.44, SD = 1.31) and Spanish students (M = 3.04, SD = 1.48) at the p = .027 level. On item 13 the one-way analysis of variances showed a significant difference

between French students (M =4.59, SD = 1.04) and Spanish students (M = 3.54, SD = 1.49) at the p = .000 level; and between German students (M =4.28, SD = 1.26) and Spanish students (M = 3.54, SD = 1.49) at the p = .001 level. On item 17, the one-way analysis of variances showed a significant difference between German students (M =4.79, SD = 1.20) and Spanish students (M = 4.06, SD = 1.40) at the p = .002 level. On item 18, the one-way analysis of variances showed a significant difference between German students (M =5.38, SD = .90) and Spanish students (M = 4.59, SD = 1.31) at the p = .000 level.

On item 19, the one-way analysis of variances showed a significant difference between French students (M =4.93, SD = 1.08) and German students (M = 4.17, SD = 1.31) at the p = .006 level; and between French students (M =4.93, SD = 1.08) and Spanish students (M = 3.96, SD = 1.41) at the p = .000 level. On item 21, the one-way analysis of variances showed a significant difference between French students (M =4.72, SD = 1.24) and Spanish students (M = 3.99, SD = 1.49) at the p = .001 level.

Summary: The results showed that among commonly taught language learners, German learners were more motivated to learn this language by their interest in the history, culture and traditions of a target language country. French learners responded that they were motivated to learn French because they liked how it sounds, and noted that they would learn French even if they would not apply in the future career.

Travel goals construct. For the *Travel Goals* construct, the one way analysis of variances showed a significant difference on item 31.

Table 33

ANOVA among common languages by Travel goals to learn the language

Item # I am motivated to learn this language because		F	G	S	Mean difference	*p* value
31. I plan to travel to a country where this language is spoken	*N*	68	53	179	F/G: .19	F/G: .642
	M	5.40	5.21	4.91	F/S: .49	F/S: .009
	SD	.78	1.08	1.28	G/S: .30	G/S: .227
32. I want to study in a country where this language is spoken	*N*	68	53	179	F/G: .11	F/G: .915
	M	4.26	4.15	3.84	F/S: .42	F/S: .135
	SD	1.41	1.47	1.62	G/S: .31	G/S: .408
33. it will enable me to live in different countries.	*N*	68	53	179	F/G: .13	F/G: .876
	M	4.46	4.58	4.33	F/S: .13	F/S: .812
	SD	1.46	1.22	1.49	G/S: .26	G/S: .494
34. it will enable me to work in different countries.	*N*	68	53	179	F/G: .22	F/G: .681
	M	4.57	4.79	4.39	F/S: .18	F/S: .643
	SD	1.44	1.15	1.50	G/S: .40	G/S: .172

On item 31, the one-way analysis of variances showed a significant difference between French students ($M = 5.40$, $SD = .78$) and Spanish students ($M = 4.91$, $SD = 1.28$) at the $p = .009$ level.

Summary: The results indicated that French learners were more motivated to learn French because they planned to travel to and study in a target language country, and German learners were more motivated by the possibility of living and working in different countries. Additionally, the difference was not found for the *Professional goals* and *Effort* constructs for critical and commonly taught languages, which means that learners of critical and commonly taught languages were equally motivated.

Pearson Correlation Test Results

The Pearson Product Moment correlation coefficient was used to determine if there was a relationship between self-efficacy and motivational factors for learning critical and commonly

taught languages. The results are presented for critical languages, commonly taught languages, and for all languages.

Critical Languages. The Pearson correlation test was computed to assess the relationship between the *Self-Efficacy* construct and each of the motivational constructs for all critical languages, Chinese, Japanese and Russian. The means were averaged for each construct. The results for the correlation analyses of all Critical Languages presented in Table 35 show that three correlations were statistically significant and were greater than or equal to .10 at the 0.05 level, one correlation was statistically significant and was greater than or equal to .10 at the .01 level, and eight correlations were statistically significant and were greater than or equal to .30 at the 0.05 level.

Table 34

Pearson correlation for self-efficacy to motivational factors for all critical languages (n=273)

	Choice	Interest	Effort	tGoals	pGoals
Self-efficacy	.24**	.18**	.42**	.36**	.37**
Choice		-.06	.08	.14*	.17**
Interest			.52**	.35**	.29**
Effort				.44**	.46**
tGoals					.48**

Note: ** correlation is significant at the 0.01 level (2-tailed).
* correlation is significant at the 0.05 level (2-tailed).

The Pearson correlation test suggested that the self-efficacy for students taking critical languages was strongly correlated with their *Effort* and that they embrace making additional presentations for these classes and establishing connections with knowledge received in other courses. The results also proved that *Self-efficacy* was strongly correlated with the *Professional goals and Travel goals* constructs, which means critical languages students planned to apply their knowledge to study and live in target language countries and considered that the knowledge of the language would allow them to be competitive in the job market.

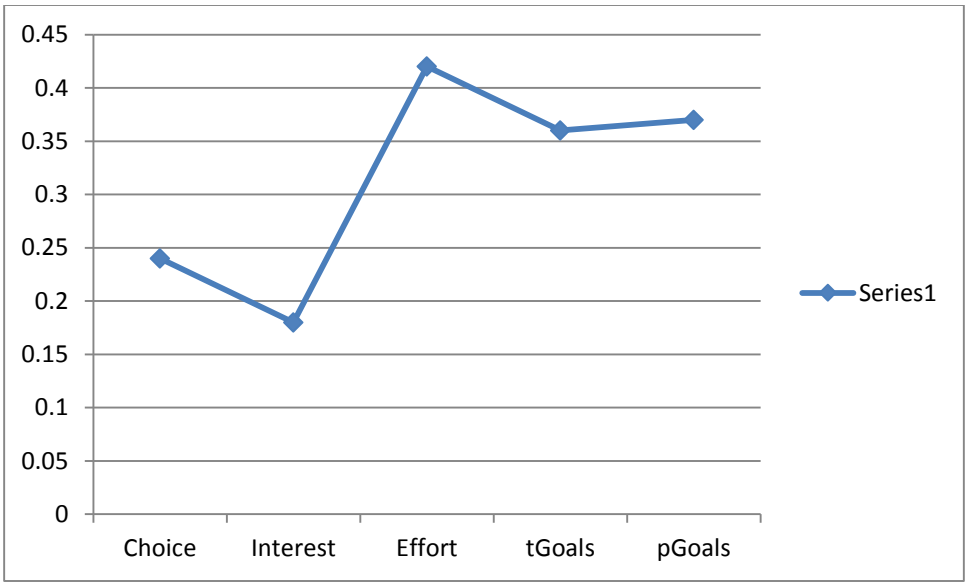


Figure 7. Pearson correlation for Self-efficacy and Choice, Interest, Effort, Travel goals, and Professional goals constructs for critical languages.

The results also showed (Table 35) that there was a statistically significant correlation between the *Interest* construct and *Effort* constructs that were greater than or equal to .52 at the 0.01 level, and between the *Professional Goals* and *Travel Goals* constructs that was greater than or equal to .48 at the 0.01 level and the *Effort* and *Attitude* constructs that were greater than or equal to .03 at the 0.05 level.

Summary: *Self-efficacy* most strongly correlated with *Effort*, *Professional Goals* and *Travel Goals* constructs (Figure 7). The strongest correlations were also found between *Effort* and *Interest* constructs, and *Professional Goals* and *Travel Goals* constructs.

Commonly Taught Languages. The Pearson correlation test was computed to assess the relationship between the *Self-Efficacy* construct and each of the motivational constructs. The means were averaged for each construct. The results for the correlation analyses for all Common Languages presented in Table 36 and Figure 8 show that two correlations were statistically significant and were greater than or equal to .10 at the 0.05 level, one correlation was statistically significant and was greater than or equal to .10 at the 0.01 level, three correlations were

statistically significant and were greater than or equal to .30 at the 0.01 level, and seven correlations were statistically significant and were greater than or equal to .50 at the 0.01 level.

Table 35

Pearson correlation for self-efficacy to motivational factors for all commonly taught languages (n=300)

	Choice	Interest	Effort	tGoals	pGoals
Self-efficacy	.24*	.50**	.59**	.57**	.33**
Choice		-.04	.09	.13*	.17**
Interest			.68**	.63**	.44**
Effort				.57**	.48**
tGoals					.51**

Note: ** correlation is significant at the 0.01 level (2-tailed).
* correlation is significant at the 0.05 level (2-tailed).

The results showed that there was a statistically significant correlation between the *Self-efficacy* construct and the *Effort, Travel Goals* and *Interest* constructs that were greater than or equal to .05 at the 0.01 level.

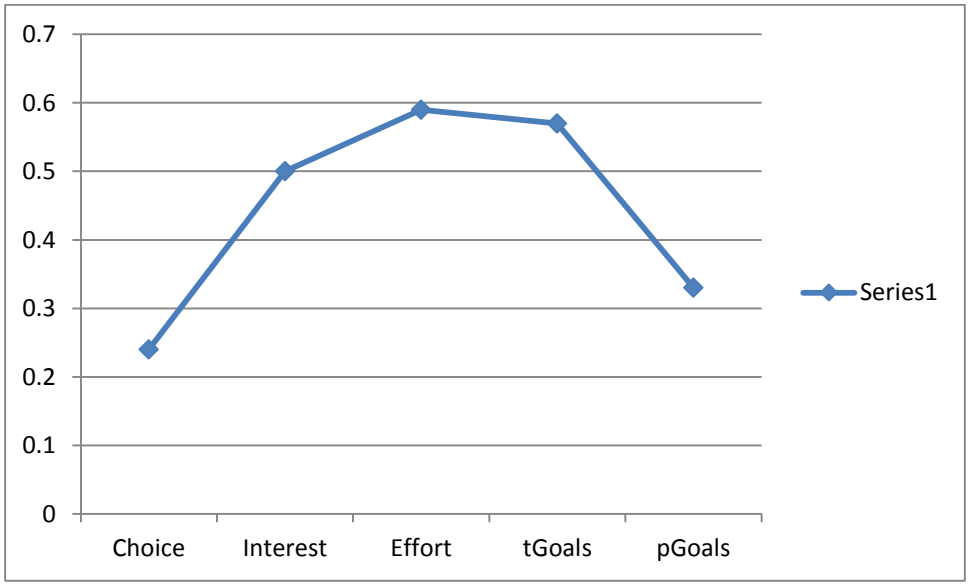


Figure 8. Pearson correlation for *Self-efficacy* and *Choice*, *Interest*, *Effort*, *Travel goals*, and *Professional goals* constructs for commonly taught languages.

Summary: *Self-efficacy* most strongly correlated with the *Effort* construct. The highest correlations were found between the *Interest* and *Effort* constructs, and between the *Interest* and *Travel goals* constructs.

Critical and Commonly Taught Languages. The Pearson correlation test was computed to assess the relationship between the *Self-Efficacy* construct and each of the motivational constructs for critical and commonly taught languages. The means were averaged for each construct. The results for the correlation analyses presented in Table 37 show that 28 of 30 correlations were statistically significant and were greater than or equal to .01, .30 and .50 at the 0.01 level and 0.05 level.

It is important to notice that the correlations between the *Self-Efficacy* construct and the *Interest, Effort* and *Travel Goals* motivational constructs for commonly taught languages were much stronger. However, the correlation between the *Self-efficacy* and the *Choice* construct was almost equal for both groups of languages, and correlation between *Self-efficacy* and *Professional Goals* constructs was more statistically significant for critical languages (Figure 9).

Table 36

Pearson correlation for self-efficacy to motivational factors for all critical languages (n=273) and all commonly taught languages (n=300)

		Choice	Interest	Effort	tGoals	pGoals
Self-efficacy	CL	.24**	.18**	.42**	.36**	.38**
	CTL	.24*	.50**	.59**	.57**	.33**
Choice	CL		-.06	.08	.14*	.17**
	CTL		-.04	.09	.13*	.17**
Interest	CL			.52**	.35**	.29**
	CTL			.68**	.63**	.44**
Effort	CL				.44**	.46**
	CTL				.57**	.48**
tGoals	CL					.48**
	CTL					.51**

Note: ** correlation is significant at the 0.01 level (2-tailed), * correlation is significant at the 0.05 level (2-tailed).

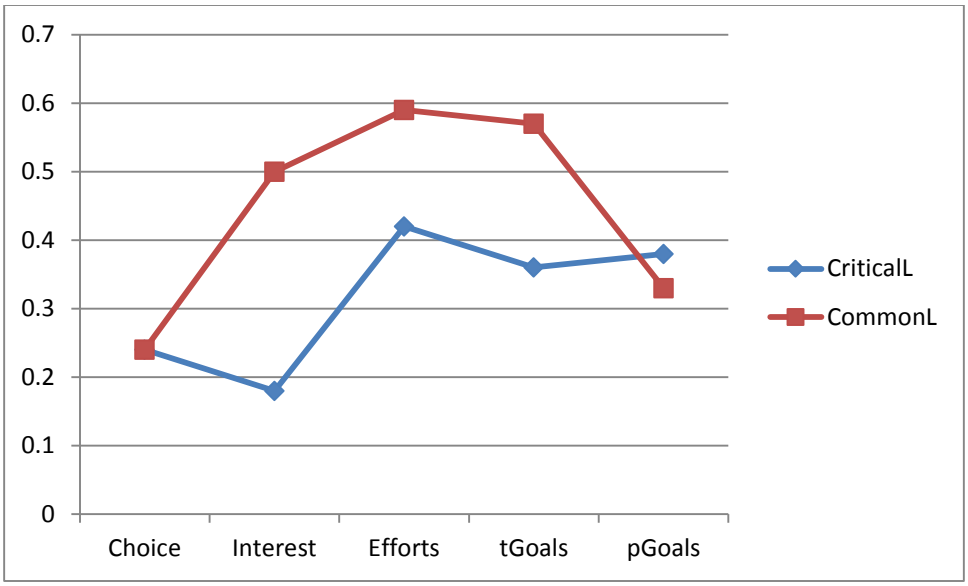


Figure 9. The correlation between the *Self-efficacy* construct and the *Choice*, *Interest*, *Effort*, *Travel goals*, and *Professional goals* constructs for critical and commonly taught languages.

Summary: *Self-efficacy* most strongly correlated with the *Effort* construct for critical and commonly taught languages though this correlation was more statistically significant for commonly taught languages. The results also showed the strongest correlations between the *Interest* construct and the *Effort* and *Travel Goal* constructs for commonly taught languages. For critical languages the strongest statistical correlation was found between *Effort* and *Interest*, and between the *Effort* and *Professional goals* constructs.

6. Path Analysis Results

In order to explore these relationships in greater detail, a preliminary model for the direct and indirect pathways was created and applied separately to the critical language group and the commonly taught language group. This preliminary model is shown in Figure 10.

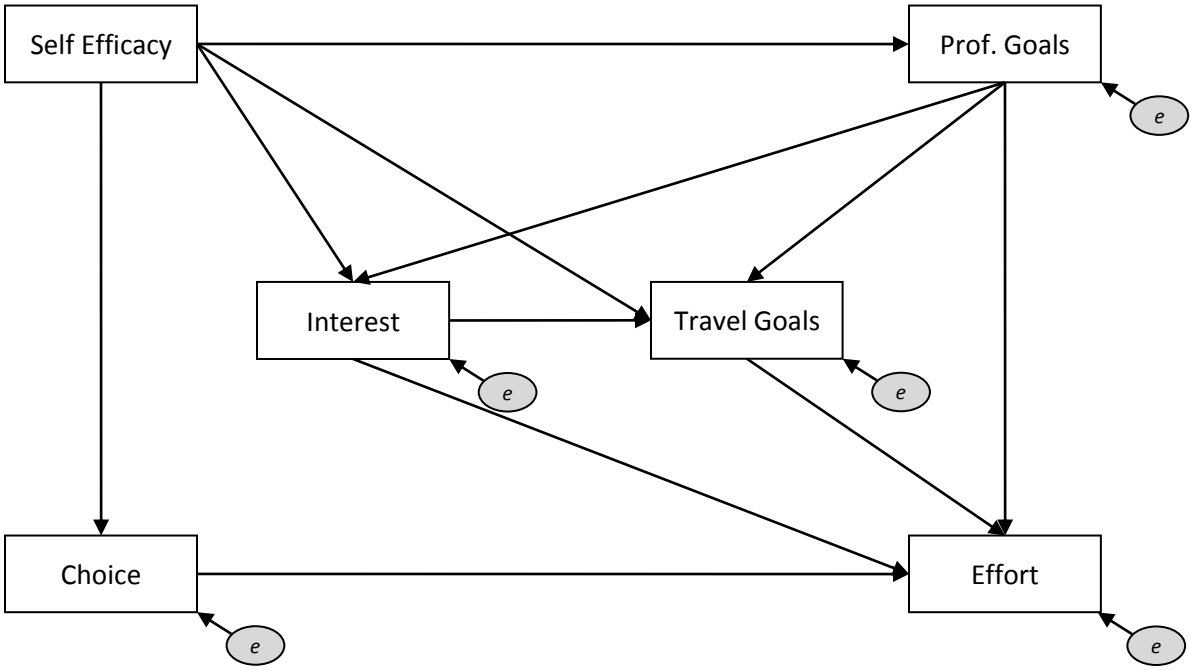


Figure 10. Preliminary path model.

Critical Languages.

Good fit was achieved for the path model on the critical language students (Chi Square = 1.690, df = 1, p = .194; RMSEA = .050).

For critical language students there was no direct path from *Self-efficacy* to *Interest*. However, there was an indirect path through *Professional goals*, that is *Professional goals* was a mediator for *Self-efficacy* and *Interest*. There were direct paths from *Self-efficacy* to *Professional goals*. There was a direct path from *Self-efficacy* to *Effort*, but the *Travel goals* construct was a mediator between *Self-efficacy* and *Effort*. The results also showed a direct path from *Self-efficacy* to *Travel goals*, but the *Professional goals* construct was a mediator between *Self-efficacy* and *Travel goals*. The results indicated that there was no direct path from *Self-efficacy* to *Choice*.

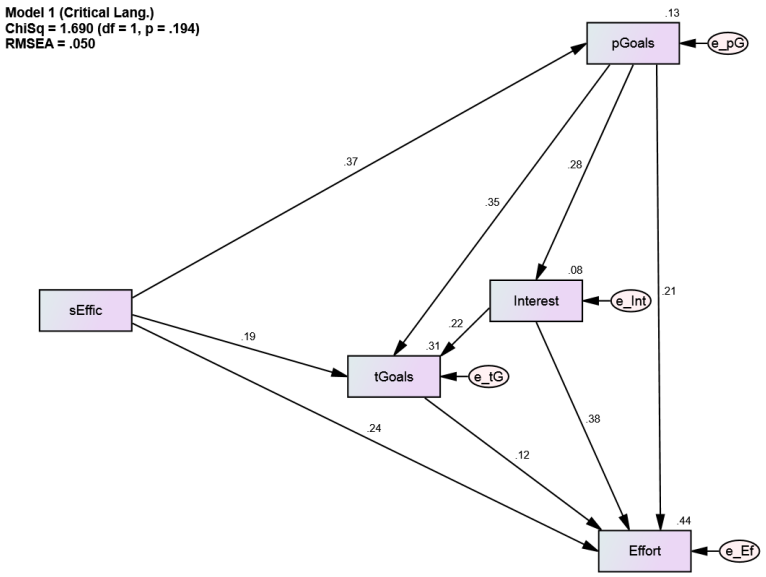


Figure 11. Path model for critical languages.

Summary: Path analysis and the Pearson correlation test proved that the *Self-efficacy* construct strongly correlated with the *Professional goals* and *Effort* constructs, while the correlations between the *Self-efficacy* constructs and the *Interest* and *Choice* constructs were weak. The results also showed that the strongest correlation for critical languages was between the *Interest* and *Effort* constructs.

Commonly Taught Languages

Good fit was achieved for the path model on the commonly taught language students (Chi Square = 9.212, df = 5, p = .101; RMSEA = .053).

For commonly taught language students there was a direct path from *Self-efficacy* to *Interest*, but *Professional goals* was also a mediator between the *Self-efficacy* and *Interest* constructs. The results showed a direct path between *Self-efficacy* and *Effort*, and *Interest* was also a mediator between the *Self-efficacy* and *Effort* constructs. Path analysis results indicated a direct path between *Self-efficacy* and *Travel goals*, but Interest was also a mediator between the *Self-efficacy* and *Travel goals* constructs.

Interest was also a mediator between *Effort* and *Travel goals* though there was no direct path for *Travel goals* and *Effort*.

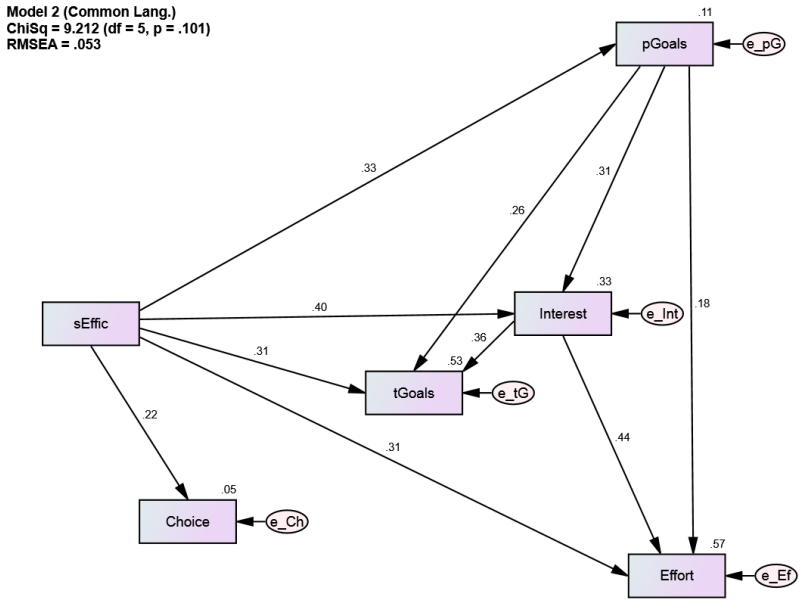


Figure 12. Path model for commonly taught languages.

Summary: Path analysis and the Pearson correlation test produced similar results: Self-efficacy strongly correlated with the *Effort, Interest,* and *Travel goals* constructs. Correlation between *Self-efficacy* and *Choice* was weak. Additionally, the strongest correlation was between the *Interest* and *Effort* constructs.

Open-ended Questions

Open-ended questions 55, 56, and 57 were analyzed by the researcher. Table 38 and Figures 13 and 14 reflect the most repeated themes and number and percentage of participants who mentioned those themes in their responses to open-ended questions 55 and 56. In addition, some of the participants responses to open-ended questions 55 and 56 are shown in Table 39.

Table 37

The most common themes, number and percentage of responses to open-ended questions 55 and 56

Themes	Critical languages			All Critical languages	Common languages			All Common languages
	C	J	R		F	G	S	
	n / %	*n / %*	*n / %*	*n / %*	*n / %*	*n / %*	*n / %*	*n / %*
55. Please, briefly describe what motivates you the most in learning this language.								
Challenge	7 / 7%	1 / 1%	11 / 13%	19 / 7%	1 / 1%	-	3 / 2%	4 / 1%
Work in government agencies	6 / 7%	2 / 2%	12 / 14%	20 / 7%	2 / 3%	-	1 / 1%	3 / 1%
Role of the country in the international arena	8 / 8%	-	14 / 15%	22 / 8%	-	2 / 4%	-	2 / 1%
Interest in different alphabet and sound system	12 / 12%	9 / 11%	30 / 35%	51 / 19%	2 / 3%	-	-	2 / 1%
Language requirement	1 / 1%	-	2 / 2%	3 / 1%	7 / 10%	11 / 21%	33 / 18%	51 / 17%
Traveling	6 / 6%	15 / 18%	6 / 7%	27 / 10%	14 / 21%	7 / 13%	23 / 13%	44 / 15%
Will help to have a successful career internationally	16 / 15%	7 / 8%	6 / 7%	29 / 11%	4 / 6%	2 / 4%	4 / 2%	10 / 3%
Will help to have a successful career	21 / 20%	8 / 10%	6 / 7%	35 / 13%	4 / 6%	3 / 6%	37 / 21%	44 / 15%
Heritage	10 / 10%	-	3 / 3%	13 / 5%	3 / 4%	13 / 25%	4 / 2%	20 / 7%
Widely spoken in the US	-	-	-	-	-	-	8 / 4%	8 / 3%

Table 37. The most common themes, number and percentage of responses to open-ended questions 55 and 56 (Continued)

Themes	Critical languages			All Critical languages	Common languages			All Common languages
	C	J	R		F	G	S	
	n / %	*n / %*	*n / %*	*n / %*	*n / %*	*n / %*	*n / %*	*n / %*
Widely spoken in the world	17 / 16%	1 / 1%	1 / 1%	19 / 7%	3 / 4%	-	5 / 3%	8 / 3%
56. Please, describe briefly what are the main barriers /difficulties / challenges in learning this language.								
Lack of partners to practice	3 / 3%	9 / 11%	6 / 7%	18 / 7%	6 / 9%	5 / 7%	2 / 1%	13 / 4%
Non-Latin alphabet	43 / 41%	43 / 52%	14 / 16%	100 / 37%	-	-	-	-
Limited resources (printed and online material)	1 / 1%	2 / 2%	1 / 1%	4 /1%	-	-	-	-
Lack of cognates	5 / 5%	6 / 7%	3 / 3%	14 / 5%	-	-	-	-
Requires more efforts	22 / 21%	30 / 36%	13 / 19%	65 / 24%	7 / 10%	7 / 13%	4 / 2%	18 / 6%
Grammar	10 / 10%	24 / 29%	51 / 59%	85 / 31%	26 / 38%	29 / 55%	80 / 49%	135 / 45%
Pronunciation	38 / 37%	8 / 10%	17 / 20%	63 / 23%	15 / 22%	7 / 13%	22 / 12%	44 / 15%

Figure 13 shows that critical language learners mentioned a difference in alphabet and opportunity for future career as the strongest motivations to learn a language. For commonly taught language learners, the strongest motivations were a language requirement, traveling, and career opportunities.

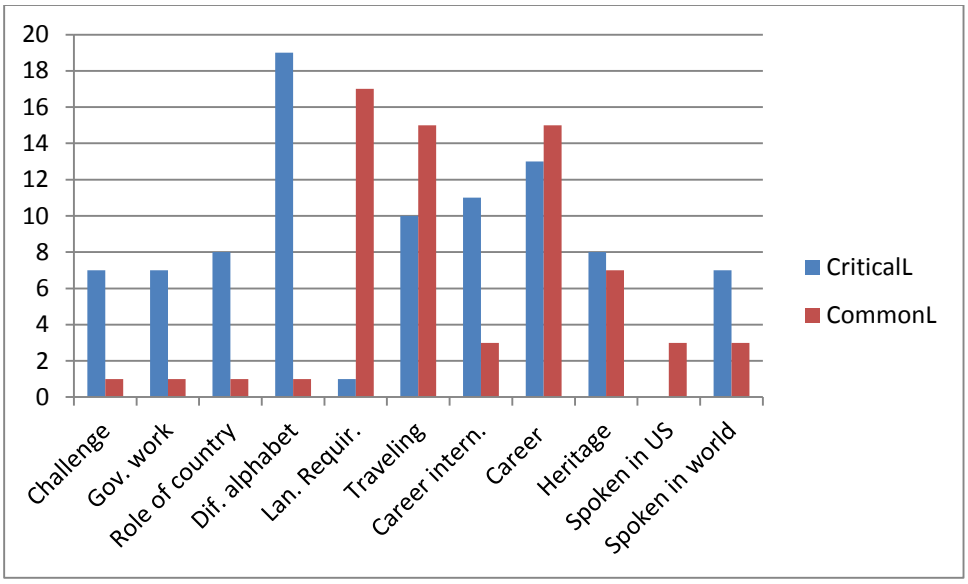


Figure 13. Responses to open-ended question 55 by theme.

The common barriers for all foreign language learners were grammar and pronunciation (Figure 14). In addition, critical language learners considered a non-Latin alphabet as a challenge and the amount of effort they put into learning was significantly higher compared to commonly taught language learners' effort.

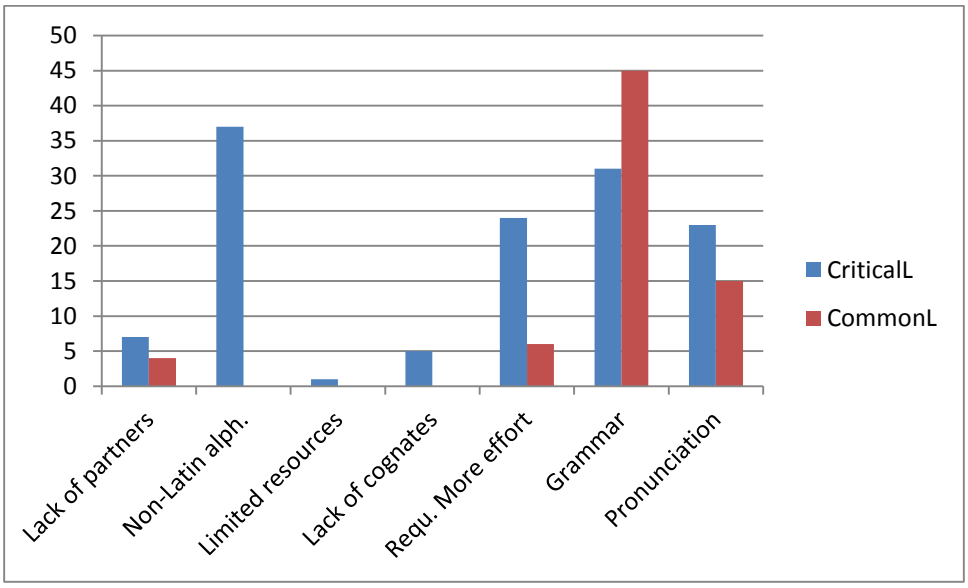


Figure14. Responses to open-ended question 56 by theme.

Table 38

Some responses of the study participants' to open-ended questions

Language	55. Please, briefly describe what motivates you the most in learning this language.	56. Please, describe briefly what are the main barriers /difficulties / challenges in learning this language.
Critical languages		
Chinese	I really enjoy the challenge learning and was really interested in a language with a different writing system. I really want to work in a government position in international relations or to be fluent in one or more critical languages to be more competitive in the field. Interested learning something completely different, and job opportunities in the future. It could make me competitive in Academic … of history study. The fact that Chinese is needed in our world because of China's rising political and economic power. Also, I have been interested in China's culture. I also plan on living in China in my future. I want to be a diplomat or translator for the United States Marine Corps. It is a new language of business since Chinese multinational companies are moving all over the world.	It requires large amount of impact time, pronunciation is troublesome. Not being surrounded by native speakers. It requires constant work.
Japanese	I would like to work in International property, or business law between the US and Japan. Japanese is very challenging which I love. I am also interested in the culture and history. I am motivated by my desire to live in Japan after school. I wanted to learn a "non-Latin" alphabet language for a challenge. Would love to study/live/teach English in Japan. Interested in diplomacy.	Very difficult grammar. The language has no references at all to English in terms of grammar and sentence structure. The first bamer is the non-Latin alphabet.
Russian	Learning to speak Russian fluently will open the opportunity at many government agencies I am interested in. Took to advance career opportunities. It sounds really pretty and my future career requires that I speak one of the official languages. The Air Force lists it as a critical language and offer incentives for learning it. I love how Russian sounds and the completely different on grammar it has. Russian is a great challenge. I am also interested to study and travel to Russian speaking world. Also, as a physics major Russian can help me to read studies and communicate with other researchers in the field that I could normally could not have. Because Russian is so different than English, I wanted to prove to myself that I could learn a foreign language.	Finding the time and individuals to practice with. Very few similarities to English. Pronunciation, the case system.

Table 38. Some responses of the study participants' to open-ended questions (Continued)

Language	55. Please, briefly describe what motivates you the most in learning this language.	56. Please, describe briefly what are the main barriers /difficulties / challenges in learning this language.
Commonly taught languages		
French	Understanding other people's language and being able to travel. There are many countries (especially in Africa) that speak this language. I am interested in working in developing nations. Mostly to fulfill requirements. I desired a challenge. I want to do mission trips in countries that speak this language.	pronunciation is the most difficult part. The numerous rules!
German	I needed for my core requirements. I have to take it for my B.A. I intend on traveling My family speaks this language. Because my ancestry is strong there and I've always wanted to travel to Germany. I took it to fulfill general educational requirements and because I had taken German in high school.	Memorizing all the vocab and grammar rules. A lot of grammar confuses me.
Spanish	It is spoken widely in the US. Learning Spanish opens doors to many job opportunities and travel opportunities. It's part of my heritage. My dad's first language is Spanish, and all of the family on his side are native Spanish speakers. Spanish is a multi continental language one that is important in the work force. As a nursing major, I think Spanish could become very useful when trying to get a job. Getting credit so I can graduate.	Using the right tenses during conversation. Pronunciation and all of the different tenses.

The researcher analyzed participants' answers to open-ended question 57 and in Figure 15 presented an approximate percentage of students who responded that they had started the language course to fulfill the language requirement but had decided or were still deciding to major or minor in this language.

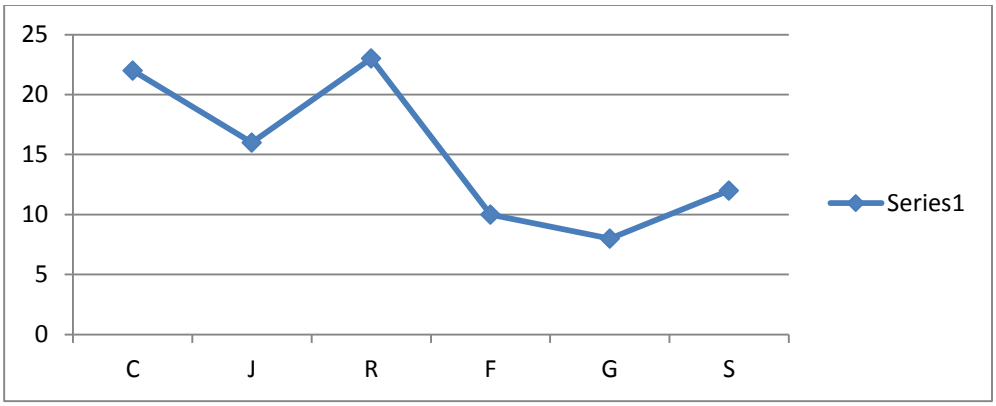


Figure 15. Approximate percentage of students by language who decided or intended to minor or major in the language after they started the language course: Chinese – 22%, Japanese – 16%, Russian – 23%, French – 10%, German – 8 %, and Spanish – 12%.

Summary: Most critical language learners were intrigued and motivated by a non-Latin alphabet and a different sound system. Most of commonly taught language learners decided to enroll in the language course to fulfill a language requirement. Though overall commonly taught language learners believed that the knowledge of a foreign language would be useful to succeed in the job market, more critical language learners specifically indicated their desire to work at the international level and for government agencies, for instance, the Air Force, embassies, and the United Nations.

Among the barriers to learning a language, critical language learners indicated a non-Latin alphabet, grammar and pronunciation and as a consequence more effort being required to learn the language. Grammar is indicated as a big challenge for commonly taught language learners, while critical language learners also struggled with pronunciation.

Despite all the difficulties of learning critical language, participants enrolled in Chinese, Japanese and Russian classes showed a stronger tendency to minor or major in them even if they hadn't planned to do so when starting the language course.

Summary of Research Findings

The goals of this study were to research, compare, and analyze how intrinsic and extrinsic motivational factors influence interests in learning critical and commonly taught languages, and to examine and compare the role of self-efficacy in learning critical and commonly taught languages.

Based on the results of exploratory factor analysis, the *Attitude* construct was eliminated and the *Goals* construct was diverged into two constructs: *Travel Goals* and *Professional Goals.* Thus, the results of descriptive statistics, an independent sample *t*-test, a one-way ANOVA, and Tukey honestly significant test, the Pearson Product Moment correlation coefficient, and Path analysis were analyzed based on the exploratory factor analysis results.

The data analyses showed that extrinsic motivation prevailed over intrinsic motivation for both groups of participants. The results also indicated that the level of extrinsic motivation was higher for critical language learners, while there was no significant difference in the level of intrinsic motivation between critical and commonly taught language learners. The strongest intrinsic motivation factor was *Interest,* and the strongest extrinsic motivational factors were *Effort* and *Travel goals.*

The data analyses proved that though there was correlation between *Self-efficacy* and other motivational factors, the correlations between the *Self-Efficacy* construct and other motivational constructs for commonly taught languages were stronger compared to the correlations between the *Self-Efficacy* construct and the motivational factors for critical languages. For commonly taught languages, the *Self-efficacy* strongly correlated with the *Effort, Interest,* and *Travel goals* constructs; for critical languages the *Self-efficacy* strongly correlated

with the *Effort*, and *Professional goals* constructs; and the correlation between the *Self-efficacy* construct and the *Choice* construct was weak for both groups of languages.

Responses to open-ended questions revealed that critical language learners were motivated to learn a language by the role that a target language country plays in the world and by challenges to learn a non-Latin alphabet based language. Critical language learners indicated their desire to work for government agencies and to pursue a professional career at national and international level. Commonly taught language learners were interested in fulfilling a language requirement, and they also planned to apply the knowledge of the language for career and traveling purposes.

All participants indicated that grammar and pronunciation were the main barriers for foreign language learning. In addition, critical language learners noted that a non-Latin alphabet, lack of cognates, limited number of native speakers and more time needed to learn a language were other barriers in learning a language.

CHAPTER 5. DISCUSSION AND IMPLICATIONS

Introduction

The purpose of this study was to research, analyze, and compare what intrinsic and extrinsic motivational factors influence students' interest in learning critical and commonly taught languages. Ryan and Deci (2000) in their discussion about different types of motivation, concluded that "the most basic distinction is between *intrinsic motivation*, which refers to doing something because it is inherently interesting or enjoyable, and *extrinsic motivation*, which refers to doing something because it leads to a separable outcome" (p. 55).

Furthermore, the study examined and compared the role of self-efficacy in learning critical and commonly taught languages. Bandura (2003) argued that self-efficacy beliefs affected and regulated human behavior determining if human cognitive, motivational and decisional actions would be self-strengthening or self-weakening. According to Bandura (2003) self-efficacy beliefs influenced the way people "motivate themselves and persevere in the face of difficulties, the quality of their emotional well-being and their vulnerability to stress and depression, and the choices they make at important decisional points" (p.87).

Research Question One: What Intrinsic and Extrinsic Motivational Factors Most Influence Students' Interest to Learn Critical Languages?

The discussion of the findings to the first research question is based on the results of the statistical analysis of the intrinsic motivational constructs *Choice* and *Interest*, the extrinsic motivational factors *Effort*, *Travel goals,* and *Professional goals*, and on participants' responses to open-ended questions.

In the field of teaching and learning world languages, intrinsic and extrinsic motivations have been the main point of interest for several researchers (Conway, 2010; Csizer & Dornyei,

2005; Schiefele, 1991; Csizer & Kormos, 2008; Schunk, 1991; Lei, 2010). Findings of the current research showed that participants learning critical languages were motivated both intrinsically and extrinsically. The results, however, proved that the participants learning critical languages as well as participants learning commonly taught languages perceived extrinsic motivation as a primary factor influencing their language choice.

Extrinsic Motivation

Confirming previous studies (Hidi & Harackiewicz, 2000; Schunk, 1991) the researcher demonstrated that goals were strong motivational factors for all language learners in this study. The results of the study revealed that for critical language learners in this study the *Travel goals* construct was the most important part of extrinsic motivation. However, there were some differences in the participants' responses to items in the *Travel goals* construct. The one-way ANOVA results showed that all critical learners were strongly motivated to learn the language in order to travel to target language countries. In addition, the combined score for Japanese learners proved that they decided to learn the language to study in Japan, while Chinese and Russian learners were motivated by the possibility of working in different countries.

The results of the current study were aligned with Skinner extrinsic motivational theory that indicates that external environmental stimuli impact on individual development and that education in general is based on societal needs and not on individual needs. Responding to the demand of governmental agencies, educational institutions introduced critical language courses into their academic curricula. Skinner's postulate stating that individuals adapt to societal needs reflected students' motivation to learn critical languages. Lau (2014) referred to China and Japan as to the leading economies in the world with which the US has strong economic ties. The study participants learning Chinese responded that the growing economy of China determined their

language choice and they linked their future career with the knowledge of Chinese. 20% of Chinese participants vs.10% of Japanese and 7% of Russian learners planned to apply the language knowledge to establish a successful national and international career including working in government agencies.

Researchers (Ging, 1994; Robinson, Rivers, & Brecht, 2006; Brecht, 2007; Al-Batal, 2007; Taha, 2010; Christian, 2007; Convay, 2010) outlined a need for professionals with advanced knowledge of various languages and cultures for purposes of trade, diplomacy, and security. In the current research, responses to open-ended questions indicated that among critical language learners of this study, 14% of Russian learners vs. 7% of Chinese learners and 2% of Japanese learners considered working for government agencies such as embassies, the Air Forces, the United Nations, and so forth. In this regard, it is important to note that among Russian learners of this study over 60.5% were male students, while among Chinese and Japanese learners males represented 40.4% and 42.2% accordingly. Thus, critical language participants indicated that they chose to enroll in critical language courses for their instrumental value.

The findings of this study showed that in the learning process the motivational factors were mutually related (Schunk, 1991; Csizer & Kormos, 2008; Deci et al., 1991; Taha, 2010; Anderson & Suleiman, 2009; Huang, 2008). For instance, setting realistic and attractive goals increased the level of energy and efforts learners put into language learning. Critical language learners must often rely on their own self-determination and ability to attain high goals and be able to manipulate the target language culture for successful communication (McGinnis, 1994). The results showed that in order to speak the language, critical language learners had to overcome a wide range of challenges: a non-Latin based alphabet language, cultural differences,

a lack of cognates, and a lack of access to native speakers. Grammar and pronunciation were other barriers indicated by critical language learners of this study. Russian learners emphasized that grammar was the biggest challenge, while Chinese learners mostly struggled with pronunciation. Due to the fact that the instructor was often the only person who could evaluate the competence and progress in the learning process, instructor's feedback was highly appreciated by critical language learners and can be considered a strong motivation (Schunk, 1991; Csizer & Dornyei, 2005; Deci et al., 1991).

Intrinsic Motivation

The study results showed that *Interest* was a stronger intrinsic motivation than *Choice*, which supported McGinnis (1994) beliefs that critical language learners were inspired not by academic requirements but by a sincere desire to learn more about a culture completely different from their own.

The results showed that learners of Chinese, Japanese, and Russian were interested in expanding their knowledge about target language cultures familiarizing themselves with the foods, traditions, and history of the countries. Since critical language learners indicated that they chose to learn Chinese, Japanese or Russian for their instrumental value, they understood the importance of knowing as much as possible about the culture, history, traditions, politics, and economic atmosphere of the target language countries in order to be able to live, study, and work successfully in a different linguistic and cultural environment. This confirmed the beliefs of other researchers (Lei, 2010; Ryan et al., 2000; McGinnis, 1994; Swain, 1974) who considered intrinsic and extrinsic motivation inseparable.

The results of the study also revealed that realizing the shortage of opportunities to master the language through communication with native speakers, critical language learners

turned toward cultural products such as movies, music, and books among other things. The indirect contact helped shape learners' attitude toward the target language culture and community (Csizer & Kormos, 2008; Schiefele, 1991). The findings showed that 90.4% of Japanese learners and 69.7% Russian learners agreed or strongly agreed that they were interested in watching movies made in the target language countries; and 81.9% of Japanese learners and 76.8% of Russian learners were interested in learning more about Japanese and Russian music respectively.

The findings also showed that critical language learners of this study were interested in enriching their knowledge about the history and traditions of countries where these languages are spoken. Additionally, Japanese and Russian learners were strongly motivated to learn Japanese and Russian because they liked how the languages sound, and just because Japanese and Russian were interesting for them. Despite the difficulties of learning a non-Latin based language, over 69% of Russian and Japanese learners expressed willingness to learn Russian and Japanese even if they would not apply them in their future career. Intrinsic motivation of Chinese learners was mainly related to instrumental value of the language knowledge. The responses of Chinese learners to items of the *Interest* construct proved their interest in learning more about the history, traditions, and food. In other words, Chinese learners of this study were interested in those aspects of language that could assist them to adapt quickly to a different culture and build a successful career. Additionally, the results showed that Chinese learners were motivated to learn Chinese because they believed that it is one of the most spoken languages in the world.

Responses to open-ended questions also indicated that some Chinese learners (10%) were interested in learning Chinese because it was their heritage language, and they wanted to know

more about their cultural background to communicate better with family members living in the US and in China.

Research Question Two: Are There Differences in Intrinsic and Extrinsic Motivational Factors Between Critical and Commonly Taught Language Students?

The results of this study proved that for both groups of participants, critical and commonly taught language learners, extrinsic motivation prevailed over intrinsic (Figure 4 and Figure 6). The intrinsic motivational construct *Interest* and the extrinsic motivational construct *Travel goals* were strongest for all study participants (Figure 3 and Figure 5).

At the same time, the results of the study revealed differences in participants' responses. Pertaining to extrinsic motivation, critical language learners, mostly Chinese learners, and commonly taught language learners, mostly Spanish learners, responded that they chose to learn the language because it is the most spoken language in the world. Additionally, Spanish learners decided to learn the language because they had had it in high school, and most of commonly taught language learners were enrolled in language courses to fulfill the language requirements. In contrast to French, German, and Spanish learners, critical language learners of this study demonstrated pervasive forms of motivation including being interested in learning a non-Latin based language and widening their knowledge about different cultures. The results showed that critical language learners expressed a deep interest in knowing more about the music, movies, history, and traditions of target language countries. Additionally, the findings indicated differences among responses of common language learners. For instance, among commonly taught language learners only German learners were interested in the role that the target language country plays in the world and subsequently expressed strong interest in learning about German culture and traditions. German learners of this study were also motivated to learn the language to

know more about their heritage. Furthermore, 76% of French learners agreed or strongly agreed that they wanted to learn the language because they liked how it sounds.

Regarding extrinsic motivation, the commonly taught language learners as well as critical language learners expressed strong motivation to overcome the challenges of learning a foreign language such as different pronunciation, grammar, and sentence structure. Learners of Russian and German found grammatical rules the most difficult compared to learners of other languages.

All study participants viewed language instructors as a source of knowledge and inspiration, and considered positive feedback as a strong motivational factor.

The findings of the study indicated that the goals that participants wished to attain were different. Critical language learners were oriented on traveling, studying and working in target language countries, while commonly taught language learners' main goal was traveling. The results also showed that in regard to career opportunities, critical language learners planned to apply the knowledge of the language to build a professional career nationally and internationally. It is crucial to observe that within the group of commonly taught languages, Spanish learners were motivated to learn the language to be competitive in the job market at home. Due to the fact that Spanish is widely spoken in the US, the study participants learning Spanish believed that it would help them to find a better job in the country.

Research Question Three: Is There a Relationship Between Self-efficacy and Intrinsic and Extrinsic Motivational Factors for Learning Critical Languages?

Analyzing the reasons why students decided to learn critical languages was the main goal of this research. Together with intrinsic and extrinsic motivations, *Self-efficacy* was another factor that affected the way students approached tasks in the process of learning foreign languages.

The results of this study revealed the strongest correlation between *Self-efficacy* and *Effort* for both groups of languages. The study participants demonstrated a high level of confidence in learning foreign languages because they had set explicit goals: traveling, working, and studying in a target language country for critical language learners and traveling and fulfilling language requirements for commonly taught language learners. The path analysis results showed that a direct correlation between *Self-efficacy* and *Effort* was increased by *Professional goals* that proved to be a strong mediator between them. The study participants also believed that positive feedback from the instructor inspired and helped them to succeed in language learning, which supported the findings of previous studies (Bandura, 1977; Bandura & Cevrone, 1983) that learners, who had goals and feedback, had a stronger self-confidence and performed better than those who had either goals or feedback or neither of them.

However, the correlation between *Self-efficacy* and *Effort* was stronger for commonly taught language learners than for critical language learners. The self-confidence of commonly taught language learners was stronger because most of them decided to continue learning the language they had had in high school. Moreover, commonly taught languages are Latin-based with many cognates and often with a similar phonological system. In addition, commonly taught language learners were taking a foreign language course to fulfill language requirements and they could see the immediate outcomes of the learning process. Critical language learners, in contrast, planned to apply the language knowledge in their future career and could not predict with certainty when and where it would be. Thus, the results of the study proved that proximal goals opposed to distant goals increased learners self-confidence and beliefs that they could attain the set goals and that easier goals enhanced self-efficacy at early stages while more

challenging and difficult goals enabled learners to demonstrate their capability to be successful in their future career (Schunk, 1991).

The results of the study determined a weak correlation between *Self-efficacy* and *Interest* for critical language learners. In addition to overcoming difficulties such as a non-Latin alphabet, grammar, and a different phonological system among other things, critical language learners had to familiarize themselves with a different culture, customs and traditions. Though the results proved that *Interest* was a stronger motivational factor for critical language learners than for common language learners, they had more to learn and understand about a target language culture. A lack of native speakers and a lack of additional resources and learning material reduced their self-confidence and beliefs that they were acquiring enough knowledge and would be able to communicate in a different cultural and linguistic environment. However, explicit distant goals that critical language learners set to attain increased the correlation between *Self-efficacy* and *Interest*. Path analysis results indicated that *Professional goals* and *Travel goals* as strong mediators, which enhanced the weak direct correlation between *Self-efficacy* and *Interest*.

According to the findings of this study, the correlation between *Self-efficacy* and *Choice* was weak for critical languages, and it was slightly stronger for commonly taught languages. Critical language learners started learning the language without any previous experience while common language learners explained their choice by previous experience and performance accomplishments which strengthened to some extent their level of self-efficacy (Bandura, 1977).

Pedagogical Implications for Teaching Critical Languages

Increasing or at least maintaining enrollment is a common issue for any foreign language instructors and programs in general. It is an even bigger problem for critical language instructors especially at educational institutions without any language requirement. The current study

examined and discussed the role of self-efficacy in the learning process, and the extrinsic and intrinsic motivations that most influence students' choice in learning critical and commonly taught languages. It was concluded that extrinsic motivation was stronger than intrinsic for all study participants. Critical languages instructors, in this regard, should consider the goals their students wish to attain through the language course, and tailor the curriculum to meet students' needs and expectations. This can be done using a short questionnaire at the beginning of the course asking students their major and minor, the reason for taking the language course, and how they want to apply the language knowledge in future.

According to the study findings, critical language learners were mainly oriented to use the language in their professional career at home and abroad, which explained their deep interest in a wide range of topics such as the role of the target language country in the world, and the history, culture, movies, and music of the countries. To satisfy learners' interests, critical language instructors should incorporate various pieces of information into class sessions. This information can be introduced using cultural products, music, movies, magazines, and so forth. However, instructors should present various styles of cultural products with diverse opinions and interpretations to show the richness and versatility of the target language culture. Discussions of cultural aspects should be focused on differences and similarities with learners' own culture rather than on attempts to create a positive opinion toward the target language culture. This will help learners to become more independent in the learning process and shape their own perception based on personal beliefs and convictions.

Due to the fact that critical language learners need more time to reach the level at which they will be able to search for additional information themselves, the instructor should deliver this information in the language native to the learners. When there is a possibility, courses

embracing history, literature, geography, and current affairs topics should also be offered in learners' native language.

Bearing in mind that critical language learners' put a lot of effort into the learning process and that their communication in the target language is often restricted to the class sessions, instructors should enhance learners' self-confidence giving them positive feedback. This will boost learners' self-motivation and beliefs that they are able to overcome the linguistic and cultural barriers.

It can be concluded that considering learners' goals and expectations, providing them with positive feedback, and introducing courses taught in English on various topics will attract more potential students to learn critical languages.

Implications for Further Research

The current research showed that *Effort* was a strong motivational factor among others that also substantially contributed to language learning. Additionally, a strong correlation was found between the *Effort* and *Self-efficacy* constructs. It would be helpful to find out if the application of technology in learning critical languages fosters learners' self-confidence and increases intrinsic and extrinsic motivations.

Previous research on the use of technology in the educational setting and particularly for foreign language learning, demonstrated that it allows the development of a large number of online courses, increases access to learning, facilitates lifelong learning, reaches a myriad students, and considerably changes classroom dynamics (Tan, Nabb, Aagard, and Kim, 2010; Kukulska-Hulme, 2010; Wiebe and Kabata , 2010). Another advantage of the technology use for foreign language learning is that educational technology makes the educational process more learner-centered placing learners at the center of the situated language learning experience with a

special emphasis on cultural aspects that are inseparable parts of language learning (Kukulska-Hulme, 2010).

Regarding future research, it is recommended that a new research instrument be developed to measure the impact of technology on learning outcomes. Future researchers should examine if social technologies, for instance, blogs, chats, Skype and so forth, can be successfully incorporated in the process of critical language learning. Taking into account the difficulties of learning a non-Latin based language, social technologies can potentially improve informal communication skills in a target language and enhance intercultural competence. The instructor's role is to provide students with the real life skills that will help them to become socially active citizens. Instructors should get information by understanding the ways in which students already use mobile technology, cell phones, laptops and other technological developmets. Kukulska-Hulme (2010) defined this process as 'a culture of listening to learners'.

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APPENDIX A. QUESTIONNAIRE

Please, answer the following questions.

1 What foreign language are you taking?_____

2 How many semesters of this language have you taken in university/college?_____

3 Did you take a course in this language in High School? Yes___ No___

4 Is this language spoken in your home? Yes___ No___

5 What is your class rank? Circle, please.

a. Freshman
b. Sophomore
c. Junior
d. Senior
e. Graduate student
f. Other

Please, <u>circle</u> one alternative for each statement according to the level of your agreement or disagreement with that item.

	CHOICE					
I chose to learn this language because….	**Strongly Disagree**	**Disagree**	**Slightly Disagree**	**Slightly Agree**	**Agree**	**Strongly Agree**
6. My parents/relatives are native speakers of this language.	1	2	3	4	5	6
7. My language teacher or advisor inspired me.	1	2	3	4	5	6
8. It is one of the most spoken languages in the world.	1	2	3	4	5	6
9. It is one of the less spoken languages in the world.	1	2	3	4	5	6
10. I had it in high school.	1	2	3	4	5	6
11. The countries where this language is spoken play an important part in the world.	1	2	3	4	5	6

INTEREST

I am motivated to…	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
12. read newspapers or magazines in this language.	1	2	3	4	5	6
13. watch movies made in countries where this language is spoken	1	2	3	4	5	6
14. try food of countries where this language is spoken.	1	2	3	4	5	6
15. learn more about music of countries where this language is spoken.	1	2	3	4	5	6
16. read literature of countries where this language is spoken.	1	2	3	4	5	6
17. learn history of countries where this language is spoken.	1	2	3	4	5	6
18. learn culture, and traditions of countries where this language is spoken.	1	2	3	4	5	6
19. learn this language because I like how it sounds.	1	2	3	4	5	6
20. participate in extra curricular cultural activities for this course.	1	2	3	4	5	6
21. learn this language just because it is interesting even if I will not apply it in my future career.	1	2	3	4	5	6

EFFORT

I am motivated to…	Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
22. handle the challenge of learning a foreign language.	1	2	3	4	5	6
23. volunteer to make additional presentations for this language course.	1	2	3	4	5	6

24. connect the knowledge from this language course to other disciplines.	1	2	3	4	5	6
25. learn a language that is not offered at my university/college.	1	2	3	4	5	6
26. devote as much time as possible to home work for this language course.	1	2	3	4	5	6
27. succeed in the language learning when I get positive feedback from the instructor.	1	2	3	4	5	6

ATTITUDE

I am motivated to…	**Strongly Disagree**	**Disagree**	**Slightly Disagree**	**Slightly Agree**	**Agree**	**Strongly Agree**
28. meet people who are native speakers of this language	1	2	3	4	5	6
29. participate in cultural and social events in which native speakers of this language are involved.	1	2	3	4	5	6
30. communicate with native speakers of this language.	1	2	3	4	5	6

GOALS

Travel Goals

I am motivated to learn this language because…	**Strongly Disagree**	**Disagree**	**Slightly Disagree**	**Slightly Agree**	**Agree**	**Strongly Agree**
31. I plan to travel to a country where this language is spoken	1	2	3	4	5	6
32. I want to study in a country where this language is spoken	1	2	3	4	5	6
33. it will enable me to live in different countries.	1	2	3	4	5	6
34. it will enable me to work in different countries.	1	2	3	4	5	6

Professional Goals

I am motivated to learn this language because…	**Strongly Disagree**	**Disagree**	**Slightly Disagree**	**Slightly Agree**	**Agree**	**Strongly Agree**
35. it will give me access to the reading material in my field of study.	1	2	3	4	5	6
36. it enables me to communicate with fellow students/researchers in this language in my field of study.	1	2	3	4	5	6
37. I can be competitive in the job market.	1	2	3	4	5	6
38. my future job may require me to speak a foreign language.	1	2	3	4	5	6
39. it is required for my further studies (or my major).	1	2	3	4	5	6
40. I like to compete and outperform my classmates in this language course.	1	2	3	4	5	6

SELF-EFFICACY

Using the following confidence scale, please rate your level of confidence for each of the following self-efficacy items. <u>Circle</u> the number that best describes your confidence level.

0	**10**	**20**	**30**	**40**	**50**	**60**	**70**	**80**	**90**	**100**
Not confident at all					**Moderately confident**					**Highly confident**

41. I am confident that I can maintain a basic conversation with my friends/ international students who are native speakers of this language.
    0 10 20 30 40 50 60 70 80 90 100

42. I feel confident that I will be able to study in a country where this language is spoken.
    0 10 20 30 40 50 60 70 80 90 100

43. I feel confident in written communication (e.g. e-mails) in this language.
    0 10 20 30 40 50 60 70 80 90 100

44. I feel confident that I can read in this language.

0 10 20 30 40 50 60 70 80 90 100

45. I am confident I will be able to speak this language fluently in the future.
0 10 20 30 40 50 60 70 80 90 100

46. I am confident I speak well in this language despite the differences and difficulties in pronunciation of this language.
0 10 20 30 40 50 60 70 80 90 100

47. I am confident I understand most of the grammatical material of this language presented in the class.
0 10 20 30 40 50 60 70 80 90 100

If you are not taking Russian, Chinese, Japanese or Arabic go straight to Question 50.

48. I am confident that I can read in this language despite the non-Latin alphabet.
0 10 20 30 40 50 60 70 80 90 100

49. I am confident that I can write in this language despite the non-Latin alphabet.
0 10 20 30 40 50 60 70 80 90 100

DEMOGRAPHICS

50. What is your age? _____
51. What is your gender? Male_____ Female_____
52. What is your major(s)?
_____
53. What is your minor(s)?
_____

54. What is your racial/ethnic identity? (Check only one)
Hispanic or Latino ___
American Indian or Alaska Native ___
Asian ___
Black or African American ___
Native Hawaiian or Other Pacific Islander ___
White ___
Race/ethnicity unknown ___

OPEN-ENDED QUESTIONS

55. Please briefly describe what motivates you the most in learning this language.

56. Please describe briefly what are the main barriers / difficulties / challenges in learning this language.

57. Did you start learning this language to fulfill language requirements and decided to minor/ major in it? Please briefly explain why.

THANK YOU FOR PARTICIPATING IN THIS QUESTIONNAIRE

APPENDIX B. TOTAL STATISTICS BY ITEM

Item	Scale mean if item deleted	Scale variance if item deleted	Corrected item – total correlation	Cronbach's alpha if item deleted
PNS6	225.77	556.660	0.409	0.902
LTINS7	223.36	511.385	0.280	0.893
MOST8	223.59	520.158	0.190	0.894
LESS9	225.14	520.504	0.225	0.893
HS10	222.59	552.920	0.104	0.897
ROLE11	222.00	512.857	0.459	0.890
NEWS12	222.82	498.346	0.682	0.887
MOVI13	222.27	502.113	0.701	0.888
FOOD14	221.86	527.457	0.214	0.893
MUSC15	222.23	501.803	0.694	0.888
LIT16	222.50	527.405	0.141	0.894
HIST17	222.27	522.017	0.331	0.892
TRADI18	221.91	508.753	0.650	0.889
SOUND19	222.64	521.100	0.247	0.893
EXACT20	222.91	487.039	0.699	0.886
INTER21	222.59	514.729	0.400	0.891
CHAL22	222.09	515.515	0.595	0.890
PRES23	223.36	507.481	0.648	0.889
OWR24	223.73	552.589	0.324	0.901
ODIS25	222.05	521.950	0.376	0.892
OUNIV26	223.50	499.405	0.448	0.890
TIME27	223.14	511.266	0.465	0.890
FEEDBC28	222.18	510.422	0.545	0.890
NATSP29	221.77	514.946	0.628	0.890
9EVENT30	222.14	502.885	0.808	0.887
CNS31	221.86	504.028	0.772	0.888
TRAV32	221.50	528.929	0.231	0.893
STUD33	222.00	537.048	0.072	0.897
LIVE34	221.91	527.706	0.155	0.894
WORK35	221.91	527.706	0.155	0.894
ACCES36	222.91	491.325	0.701	0.886
RSCH37	222.73	492.017	0.669	0.887
JOB38	222.27	519.636	0.210	0.894
JOBR39	222.86	484.219	0.578	0.888

Item	Scale mean if item deleted	Scale variance if item deleted	Corrected item – total correlation	Cronbach's alpha if item deleted
STUDR40	222.86	491.838	0.514	0.889
OUTPRF41	223.55	525.498	0.146	0.894
BCONV42	218.45	488.736	0.551	0.888
STUDY43	219.00	510.857	0.318	0.892
WRITC44	218.55	485.593	0.644	0.886
READ45	218.32	513.370	0.379	0.891
SFLU46	218.55	497.117	0.434	0.891
PRON47	218.82	497.489	0.506	0.889
GRAM48	218.91	468.277	0.653	0.886

APPENDIX C. NORTH DAKOTA STATE UNIVERSITY INSTITUTIONAL REVIEW BOARD (IRB) APPROVAL

NDSU NORTH DAKOTA STATE UNIVERSITY

Institutional Review Board
Office of the Vice President for Research, Creative Activities and Technology Transfer
NDSU Dept. 4000
1735 NDSU Research Park Drive
Research 1, P.O. Box 6050
Fargo, ND 58108-6050

701.231.8995
Fax 701.231.8098
Federalwide Assurance #FWA00002439

Wednesday, October 10, 2012

Dr. Myron Eighmy
School of Education

Re: IRB Certification of Human Research Project:

"Intrinsic and Extrinsic Motivational Factors tht Influence Students' Interest in Critical Languages Learning"
Protocol **#HE13050**

Co-investigator(s) and research team: **Elena Atitsogbui**

Study site(s): **varied** Funding: **n/a**

It has been determined that this human subjects research project qualifies for exempt status (category # 2) in accordance with federal regulations (Code of Federal Regulations, Title 45, Part 46, *Protection of Human Subjects*). This determination is based on the protocol form received 10/4/2012 and consent/information sheet received 10/4/2012.

Please also note the following:

- This determination of exemption expires 3 years from this date. If you wish to continue the research after 10/9/2015, the IRB must re-certify the protocol prior to this date.
- The project must be conducted as described in the approved protocol. If you wish to make changes, pre-approval is to be obtained from the IRB, unless the changes are necessary to eliminate an apparent immediate hazard to subjects. A *Protocol Amendment Request Form* is available on the IRB website.
- Prompt, written notification must be made to the IRB of any adverse events, complaints, or unanticipated problems involving risks to subjects or others related to this project.
- Any significant new findings that may affect the risks and benefits to participation will be reported in writing to the participants and the IRB.
- Research records may be subject to a random or directed audit at any time to verify compliance with IRB policies.

Thank you for complying with NDSU IRB procedures; best wishes for success with your project.

Sincerely,

Kristy Shirley

Kristy Shirley, CIP, Research Compliance Administrator

APPENDIX D. MACALESTER COLLEGE INSTITUTIONAL REVIEW BOARD (IRB) APPROVAL

Macalester College

From: Martin Gunderson [gunderson@macalester.edu] **Sent:** Friday, November 30, 2012 12:46 PM
To: Elena Atitsogbui **Cc:** Daniel Trudeau **Subject:** Research at Macalester

Dear Ms. Atitsogbui, I am the chair of the Macalester College IRB panel. You do not need the permission of the IRB to recruit students on campus for research that poses no more than minimal risk. However, if you want access to lists of students or information on students, then you will need the permission of the IRB. In that case, you can send me your protocol. Best wishes, Martin Gunderson, -- Martin Gunderson DeWitt Wallace Professor of Philosophy Macalester College St. Paul, MN 55105 651-696-6153

APPENDIX E. ST. OLAF COLLEGE INSTITUTIONAL REVIEW BOARD (IRB)

APPROVAL

From: Jo M Beld [beld@stolaf.edu]
Sent: Friday, February 08, 2013 8:38 AM
To: Elena Atitsogbui; Susan E Canon; Christopher Chiappari
Subject: Including St. Olaf students in your dissertation research

St. Olaf Collage

Dear Elena,

My apologies for my slow reply.

Since no St. Olaf employees would be co-investigators with you, you do not need St. Olaf IRB approval so long as your own institution's IRB has approved the project and the instructors through whom you would be recruiting students have been fully apprised of the nature of your study and are willing to assist as requested. I noticed that St. Olaf was not included in the list of institutions provided in your protocol; if you submit a modification form or other documentation of the inclusion of our institution, please provide a copy of that information to us for our records.

Thank you for contacting us, and best wishes for a successful dissertation experience.

Cordially,

Jo Beld
Chair, St. Olaf IRB

APPENDIX F. WINONA STATE UNIVERSITY INSTITUTIONAL REVIEW BOARD (IRB) APPROVAL

Winona State University

From: Peterson, Nancy K [NPeterson@winona.edu]
Sent: Friday, February 08, 2013 7:46 AM
To: Elena Atitsogbui
Subject: RE: Critical languages research: assistance needed

As long as you have filed a copy of NDSU's IRB approval with us, you are good to go here. I've attached some guidelines you can share with the WSU faculty you are working with on our campus. Let me know if you have any other questions.

Nancy Kay Peterson
Director of Grants & Sponsored Projects
Human Subjects Protection Administrator
Maxwell 161A
Winona State University
Winona, MN 55987
Phone: 507-457-5519

APPENDIX G. ST. CLOUD STATE UNIVERSITY INSTITUTIONAL REVIEW BOARD (IRB) APPROVAL

St. Cloud University

From: Donnay, Linda I. [LIDonnay@stcloudstate.edu]
Sent: Friday, March 01, 2013 11:54 AM
To: Elena Atitsogbui
Subject: RE: Critical Languages research, IRB questions

Hello Elena,
Thank you for agreeing to verify participants are at least 18 years of age or older prior to distribution of the survey. Since you are not working in collaboration with anyone here at SCSU in the administration of the survey, there is no formal IRB approval given. Feel free to contact faculty on campus and should they have questions, you can refer them to me regarding the IRB approval.
Thanks much. TGIF!

Linda Donnay, MBA
Compliance and Ethics Director
Office of Sponsored Programs
St. Cloud State University
720 4th Avenue South AS210
St. Cloud, MN 56301-4498
320-308-5148 phone
320-308-5292 fax

APPENDIX H. UNIVERSITY OF NORTH DAKOTA INSTITUTIONAL REVIEW BOARD (IRB) APPROVAL

UNIVERSITY OF UND NORTH DAKOTA

INSTITUTIONAL REVIEW BOARD
c/o RESEARCH DEVELOPMENT AND COMPLIANCE
DIVISION OF RESEARCH
TWAMLEY HALL ROOM 106
264 CENTENNIAL DRIVE STOP 7134
GRAND FORKS ND 58202-7134
(701) 777-4279
FAX (701) 777-6708

February 27, 2013

Elena Atitsogbui
3504 32nd Street South
Fargo, ND 58104

Dear Ms. Atitsogbui:

We are pleased to inform you that your project titled, "Intrinsic and Extrinsic Motivational Factors That Influence Students' Interest in Critical Languages Learning" (IRB-201302-236) has been reviewed and approved by the University of North Dakota Institutional Review Board (IRB). The expiration date of this approval is August 1, 2014.

As principal investigator for a study involving human participants, you assume certain responsibilities to the University of North Dakota and the UND IRB. Specifically, any adverse events or departures from the protocol that occur must be reported to the IRB immediately. It is your obligation to inform the IRB in writing if you would like to change aspects of your approved project, prior to implementing such changes.

When your research, including data analysis, is completed, you must submit a Research Project Termination form to the IRB office so your file can be closed. A Termination Form has been enclosed and is also available on the IRB website.

If you have any questions or concerns, please feel free to call me at (701) 777-4279 or e-mail michelle.bowles@research.und.edu.

Sincerely,

Michelle L. Bowles, M.P.A., CIP
IRB Coordinator

MLB/jle

Enclosures

APPENDIX I. CONCORDIA COLLEGE INSTITUTIONAL REVIEW BOARD (IRB) APPROVAL

November 15, 2012

Elena Atitsogbui
Instructor of French
Concordia College
Moorhead, MN 56562

Dear Ms. Atitsogbui:

The Concordia College Institutional Review Board (IRB) recognizes the approval of your study, *Intrinsic and Extrinsic Motivational Factors that Influence Students' Interest in Critical Languages Learning* (Protocol # HE13050) from North Dakota State University IRB in which you plan to survey Concordia students enrolled in Spanish, German and French language classes. Please notify us and send us a copy of any changes in the status of the review or approval. Best wishes for a successful study.

Sincerely,

Linda Scott, EdD, RN
Associate Professor
Chair, Institutional Review Board

Institutional Review Board
Academic Affairs
Concordia College, 901 8th St S, Moorhead MN 56562
Office (218) 299-3001 • Fax (218) 299-4940
Web site: www4.cord.edu/acadaffairs/irb
an equal opportunity employer

APPENDIX J. MINNESOTA STATE UNIVERSITY OF MOORHEAD INSTITUTIONAL REVIEW BOARD (IRB) APPROVAL

From: Richard Adler <richard.adler@mnstate.edu>
Sent: Tuesday, March 12, 2013 4:30 PM
To: eighmy@ndsu.edu; Elena Atitsogbui; Richard Adler
Subject: IRB Expedited Status Proposal Approval Eighmy and Atitsogbui (NDSU)

Date:	March 12, 2013
Principle Investigator:	Myron Eighmy
Co-Investigator(s):	Alena Atitsogbui
Title of Study:	Intrinsic and extrinsic motivational factors that influence students' interest in critical language learning

I

Thank you for submitting your expedited research proposal, with modifications, as stated above. After careful review by two members of the IRB, I am pleased to inform you that **your proposal has been approved.** You may proceed with your study.

Should there be any significant change in the methods or materials you presented for approval, please inform the Institutional Review Board for re-approval of any changes in these areas.

You will need to complete a*Project Completion or Continuing Review Form* before the end of the academic year. You will be notified when this review is due.

The criterion for these reviews is available on the IRB website at**web.mnstate.edu/irb**

Modifications still needed:None

Thank you.

Approved by:

Richard K. Adler, Chair
Institutional Review Board
adlerri@mnstate.edu
(218) 477-2474

APPENDIX K. PARTICIPANT INFORMED CONSENT

NDSU North Dakota State University
College of Human Development and Education
1301 12th Street North
Fargo, ND 58108-6050
(701) 231-6775

Title of Research Study: INTRINSIC AND EXTRINSIC MOTIVATIONAL FACTORS THAT INFLUENCE STUDENTS' INTEREST IN CRITICAL LANGUAGES LEARNING

This study is being conducted by:

Dr. M. Eighmy and Elena Atitsogbui, elena.atitsogbui@my.ndsu.edu.

Why am I being asked to take part in this research study?

You are being asked to take part in this study because you are currently enrolled in a second language class.

What is the reason for doing the study?

The purpose of this study is to understand why students are learning foreign languages: only because it is required, out of interest, they plan to use them for their future career or for other reasons. The study will compare the answers of those who learn commonly taught languages such as Spanish, French and German to those who learn critical languages such as Arabic, Chinese, Japanese and Russian. The answers will help to improve methods and strategies used in teaching foreign languages as well as students' enrollment in foreign language classes.

What will I be asked to do? You will be asked to answer the survey questionnaire that will include questions on (a) demographic data, (b) why you decided to take a foreign language course, (c) why you decided to learn the foreign language, (c) if you feel more comfortable dealing with people of other cultures, (d) if the language course helped you to learn more about your own culture.

Where is the study going to take place, and how long will it take?

For study subjects who will take a paper-based survey the study will take place during your foreign language class session. Those who will take an on-line survey will be provided with the link to take the survey on your own time. It will take approximately 10 minutes.

What are the risks and discomforts?

There is no any risk for your health or general well being.

What are the benefits to me?

You are not expected to get any benefit from being in this research study.

What are the benefits to other people

Foreign language instructors can better understand the reasons why students take a foreign language course. This can help to improve a foreign language course design and students' enrollment in foreign language courses.

Do I have to take part in the study?

You don't have to participate in this study and can stop participating at any time.

What will it cost me to participate?

There will be no charge to participate in this study.

What are the alternatives to being in this research study?

Instead of being in this research study, you can choose not to participate.

Who will see the information that I give?

The information you will provide will be confidential and anonymous. Only the researcher will have access to the information. After the data is analyzed, the information will be destroyed. The results will be presented in a dissertation paper. This study is anonymous. That means that no one, not even members of the research team, will know that the information you give comes from you. Your information will be combined with information from other people taking part in the study. When we write about the study, we will write about the combined information that we have gathered.

Will I receive any compensation for taking part in this study?

No.

What if I have questions?

Before you decide whether to accept this invitation to take part in the research study, please ask any questions that might come to mind now. Later, if you have any questions about the study, you can contact the researcher, Dr. Myron Eighmy at myron.eighmy@ndsu.edu. .

What are my rights as a research participant?

You have rights as a participant in research. If you have questions about your rights, or complaints about this research you may talk to the researcher or contact the NDSU Human Research Protection Program by:

- Telephone: 701.231.8908 or toll-free at 1-855-800-6717
- Email: ndsu.irb@ndsu.edu
- Mail: NDSU HRPP Office, NDSU Dept. 4000, PO Box 6050, Fargo, ND 58108-6050.

The role of the Human Research Protection Program is to see that your rights are protected in this research; more information about your rights can be found at: www.ndsu.edu/research/irb .

Acknowledgement of Informed Consent:

You are freely making a decision whether to be in this research study. Participating in this survey means that

1. you have read and understood this consent form
2. you have had your questions answered, and
3. you have decided to be in the study.