

COMPARING STUDENTS' PERCEPTIONS OF ONLINE LANGUAGE LEARNING TO  
TRADITIONAL LEARNING

by

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Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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## ABSTRACT

This study examined students' perceptions towards online language learning and face-to-face learning. A survey of multiple intelligences (McClelland & Conti, 2008) combined with an Online Learning Readiness Survey (OLRS) survey (Dray, Lowenthal, Miskiewicz, Ruiz-Primo, & Marczyński, 2011) was distributed to 2,177 community college and university students in order to measure the strength of each of the nine intelligences each student possessed, as well as their perceptions of readiness for online language learning. Student preference for online/hybrid versus traditional language class was also considered. The three research questions involved an investigation of: 1) the differences between students who attended an online/hybrid foreign or second language class and those who attended a traditional foreign or second language class based on their level of online readiness, 2) the participants' levels of interpersonal and intrapersonal intelligences as predictors of online readiness, and 3) the differences between those participants who preferred hybrid, online foreign or second language classes and those who preferred traditional foreign language classes based on their level of interpersonal and intrapersonal intelligence. Only student attendance in an online, hybrid, or traditional class as compared to online readiness for learning was found to be significant.

*Descriptors:* students' perceptions, multiple intelligences, online learning, hybrid, language, student satisfaction, traditional, interpersonal intelligence, intrapersonal intelligence, gender, survey, learner autonomy, self-directed learner

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## CHAPTER ONE: INTRODUCTION

Language acquisition has changed dramatically since the onset of different languages at Babel (Genesis 11: 7-9, English Standard Version). Languages have always been passed successfully from parents to children throughout the centuries, without a second thought about how language should be transmitted. Language should come naturally, with no need of an instructor or a multitude of lessons. If a first language can be acquired with such ease, then why could not a second or foreign language? How people define language is another point to consider. Some modern language theorists believe that it is people who should define a concept such as language. Everyone could create their own meaning. According to Seargeant (2007):

A pure concept of language does not exist outside our ability to comprehend and articulate the nature of that language through language itself. Thus [sic] it is the necessary consequence of the one theoretical proposition that gives rise to the other: language determines (or at the least, enables) our thought about language (p. 346).

Not surprisingly, Seargeant's ideas are totally contrary to Genesis; there could be no purer concept of language than is found in God's Word. The Apostle John proclaimed, "In the beginning was the Word, and the Word was with God, and the Word was God" (John 1:1, ESV). Presented in this review is a brief history of language acquisition and several language acquisition theories. Various studies on foreign and second language learning, computer use in language classes, and online learning, with a focus on distance language learning and its continual progress throughout the past decade, are examined.

It is sad that students often lose interest at a certain point in their language learning and become stagnant. Distance learners, especially, may be affected by the lack of encouragement, collaboration with other students, or assistance from an instructor. However, online language



learning proponents claim to incorporate several aspects which are absent in a typical classroom, such as instant feedback on exercises and tests, and convenient access from home. Students are encouraged when they know immediately that they are making progress (Furnborough & Truman, 2009; Hyun-Sook, 2009). Also, with the advancement and ease of technology, and the number of online classes and aids for learning language that exist, it may make sense that language learning could be facilitated by online classes.

Another important factor to consider in online learning is the students' learning styles. Students may need frequent interaction with their professor and other students, or they may function better on their own. Yadin and Or-Bach (2010) complained that too much research has concentrated on collaboration rather than on individual study. Investigating students' perceptions of distance learning could assist language instructors in gaining a better understanding of their students. Instructors would then be able to assist their students in overcoming any fears they might have of learning another language or of distance learning. The researcher of the current study examined the perceptions of students who studied language exclusively online, in a classroom setting, or a combination of both, such as in a hybrid course, in order to discover whether or not students considered themselves autonomous or collaborative learners (Wu, 2009).

Distance learning is on the rise, so an interesting investigation would entail discovering how online learning affects students, especially those who are learning a second or foreign language. Technology integration has become a critical tool for the classroom, yet research has shown that some students have mixed feelings towards the implementation of technology when learning a language (Kim, 2009; Sayadian & Lashkarian, 2010). Language students may appreciate online learning for its convenience and cost, but may also experience several

challenges. Although much research has been conducted on online learning in general, not much research has been done concerning learning languages online, and whether or not certain students function better in this venue than in others.

Exploring students' perceptions towards learning language online was examined in this study. Online learning has steadily improved and advanced, yet not all students experience the same level of enthusiasm about taking online classes. Kupczynski, Mundy, and Jones (2011) used a causal-comparative design in their study to examine five variables: expected GPA levels, "instructor presentation, feedback, caring and instructor rating" (p. 5). Two main variables involved in the research were online learning and student satisfaction. The authors concluded that there was a significant relationship among all the variables according to the "preliminary data" (Kupczynski, et al., 2011, p. 5) and the MANOVA results showed that the students who expressed the highest levels of satisfaction with their courses also expected the highest grades. Kupczynski, et al. (2011) believe that self-efficacy may play a part in the noted trend of students expecting high grades based on their satisfaction. Student satisfaction with online classes may depend on proper preparation. Measuring student readiness for distance learning was the aim of Dray, Lowenthal, Miskiewicz, Ruiz-Primo, and Marczyński (2011), who combined three surveys in their study. To assess the utility of their survey, the researchers performed a "reliability analysis, confirmatory factor analysis, and convergent validity" (Dray et al., p. 39). Their survey will be used in the present study to determine whether or not students consider themselves ready for an online language class, whether or not it be completely online or a hybrid class (Dray, et al.).

Multiple intelligences may also factor into learning another language, as Gardner (1983) identified linguistic intelligence as a specific intelligence for learning language. He also

identified both an interpersonal and an intrapersonal intelligence. These three intelligences may play an important role in learning a language online. McClellan and Conti (2008) created and tested a multiple intelligences (Gardner, 1983) survey by field testing it and identifying its construct validity and content validity. Then the researchers distributed the survey to 87 community college students in order to identify the strength of each participant's particular multiple intelligence. After conducting a factor analysis on the survey, McClellan and Conti were able to "confirm the construct validity" of the instrument (p. 26).

### **Problem Statement**

Distance learning continues to expand in many areas, but foreign and second online language classes are minimal, possibly due to the persistent belief that face-to-face contact is needed. Free Spanish lessons, which include pronunciation by native speakers, abound on the Internet, yet many students prefer learning in a classroom setting and do not take advantage of this opportunity. The belief persists that online learning is not as effective as classroom learning. Recent research reveals the effectiveness of student collaboration in the classroom and online, but also shows that some students are more self-directed learners than others and prefer to work independently (Chih-Cheng, Hsin-Jung, & Hsien-Sheng, 2011; Kikuchi, 2009; Liu, Liu, Lee, & Magjuka, 2010; Vaughn, Martinez, Linan-Thompson, Reutebuch, Carlson, & Francis, 2009; Yang, 2009;). Identifying whether or not students are autonomous learners or collaborative learners could lead to a better understanding of whether or not they would function better as distance learners or in a classroom, especially when language is the subject. Discovering the perceptions of students towards distance learning is another important factor which may provide some answers as to why certain students are comfortable with online classes and why others

experience problems. Studies are deficient in these aspects of language learning, so this study explored learner characteristics to discover student readiness towards learning language online.

### **Statement of Purpose**

The purpose of this causal-comparative and correlational study was to test the theory that students who are independent learners would rate themselves as better prepared for learning a language online than traditional language learners who may face more challenges in a distance environment. Also, the researcher hoped to show that students who rate high in intrapersonal intelligence may feel more comfortable with the idea of learning a language online. A multiple intelligences survey was combined with an online learning readiness survey to identify students with strengths in either intrapersonal or interpersonal intelligences (McClellan & Conti, 2007). The survey included a measure of the participants' readiness for online study (Dray et al., 2011). The first section of the survey attempted to discover which students considered themselves to be collaborative learners and which ones preferred independent study.

The second section of the survey examined student attitude towards distance learning in order to determine whether or not those who were presently taking online or hybrid classes, as well as those considering taking online or hybrid classes in the future, felt sufficiently prepared and capable of the task. The independent variables were modes of language learning, which were separated into traditional, hybrid, and online language classes, and were controlled for age, gender, and length of time studying a language. The dependent variables were divided into two subgroups. The first subgroup, attitudes towards online learning, had two variables, student satisfaction with online language learning and student readiness for online language learning. The second subgroup, learner characteristics, also had two variables, interpersonal intelligence and intrapersonal intelligence (Dray et al., 2011; McClellan & Conti, 2007). The

researcher hopes that more research on student attitude and readiness for online language classes will result in more distance learning for language in the future.

### **Research Questions and Hypotheses**

The following research questions were proposed for examination in the present study:

**Research Question 1:** Is there a statistically significant difference between students who attended an online/hybrid foreign language class and those who attended a traditional foreign language class on their level of online readiness?

This question was answered by the results from the OLRs section of the Multiple Intelligences and Online Learning Readiness Survey.

**Research Question 2:** Are the participants' levels of interpersonal and intrapersonal intelligences significant predictors of online readiness?

This question was also answered by the results from the MI and OLRs sections of the Multiple Intelligences and Online Learning Readiness Survey.

**Research Question 3:** Are there statistically significant differences between those participants who prefer hybrid, online and those who prefer traditional foreign language classes on their level of interpersonal and intrapersonal intelligence?

This question was also answered by the results from the MI and OLRs sections of the Multiple Intelligences and Online Learning Readiness Survey.

The null hypotheses are as follows:

**H<sub>0</sub>1:** There will not be a statistically significant difference between students who attended an online/hybrid foreign language class and those who attended a traditional foreign language class on their level of online readiness.

**H<sub>0</sub>2:** The participants' levels of interpersonal and intrapersonal intelligences will not be significant predictors of online readiness.

**H<sub>0</sub>3:** There will not be statistically significant differences between those participants who prefer hybrid, online and those who prefer traditional foreign language classes on their level of interpersonal and intrapersonal intelligence.

A review of the literature will follow the definitions to introduce several important figures and concepts in the field of linguistics and the theory of Multiple Intelligences (Gardner, 1983).

### **Definitions**

*American Council on the Teaching of Foreign Languages (ACTFL)* – professional organization for foreign or second language teachers

*ACTFL Proficiency Guidelines* – guidelines to gauge a person's working proficiency in a foreign language-ranging in levels from novice to distinguished

*Affective Filter* – a barrier to language learning due to various factors such as nervousness and other factors (Dulay, Burt, & Krashen, 1982; Krashen, 2004)

*Analysis of Covariance (ANCOVA)* – “a statistical technique for equating groups on one or more variables when testing for statistical significance; it adjusts scores on a dependent variable for initial differences on other variables, such as pretest performance or IQ” (Frankel & Wallen, 2003, p. G-1)

*Analysis of Variance (ANOVA)* – “a statistical technique for determining the statistical significance of differences among means; it can be used with two or more groups” (Frankel & Wallen, 2003, p. G-1)

*Approach* – interchangeable with method

*Asynchronous Approach* – when a student works on lessons online at any time

*Audiolingual Method* – a method of language learning using oral repetition, grammar drills, and that delayed the writing and reading aspects of language learning until the oral/listening aspects were mastered, which “dominated language teaching in the 1950s and 1960s” (Dörnyei, 2009, p. 274)

*Authentic Material* – For language instruction, defined as real-life materials, available to native speakers, such as menus, tickets, clothing, etc. Gilmore (2011) defined it as using materials other than a textbook for language instruction

*Blended Approach* – a combination of online and traditional instruction

*Causal-Comparative* – also (Ex Post Facto) – design of a study which seeks a “cause for, or consequences of, existing differences in groups of individuals” (Fraenkel, & Wallen, 2003, p. G-1)

*Chi-Square Test* – a test used when “frequency data on normal scales are used” (Gall, Gall, & Borg, 2010)

*Communicative Approach* – also called “Communicative Language Teaching” – centers on “meaningful communication” (Dörnyei, 2009, p. 276)

*Computer-Assisted Language Learning (CALL)* – “an intercontinental and interdisciplinary journal that focuses on all matters associated with the use of computers in language learning (L1 and L2), teaching and testing.”

*Correlational* – design of a study involving “the direction and degree of the relationship among variables...” (Gall, Gall, and Borg, 2010, p. 551)

*Cronbach’s Alpha Coefficient ( $\alpha$ )* – “A measure of the internal consistency of a test containing items which are not scored dichotomously, based on the extent to which test-takers

who answer a given test item one way respond to other items in a similar way” (Gall, Gall, & Borg, 2007, p. 637)

*English as a Foreign Language (EFL)*-when English is learned in one’s own country

*Fluency* – rate or speed of utterance of a language

*Foreign Language* – a new language, usually learned in a one’s own country

*Hybrid Classes* – classes which involve both face-to-face and online instruction

*IELTS - (International English Language Testing System)* – test for non-native English speakers to measure their proficiency in English

*Language Acquisition Device (LAD)* – Chomsky’s (1965) label for his theory of how language is acquired naturally ( Trachsel, 2010)

*Learner Autonomy* – students’ ability to organize everything involved with learning on their own, including the ability to complete assignments in a timely manner, communicate with professors, and follow directions (Confessore, 1992)

*Likert Scale* – a scale which “asks participants to respond to a series of statements by indicating whether or not they strongly agree (SA), agree (A), are undecided (U), disagree (D), or strongly disagree (SD)” (Gay & Airasian, 2003, p. 131)

*Multivariate Analysis of Variance (MANOVA)* – “An extension of analysis of covariance which incorporates two or more dependent variables in the same analysis” (Frankel & Wallen, 2003, p. G-1)

*Metacognitive* – “Metacognitive knowledge consists primarily of knowledge or beliefs about what factors or variables act and interact in what ways to affect the course and outcome of cognitive enterprises. There are three major categories of these factors or variables—person, task, and strategy” (Flavell, 1979, p. 907).



*Method* – interchangeable with approach; the way a language is taught, includes theory, practice, focus, and materials – example Audio-Lingual Method

*Multiple Intelligences Theory (MIT)* – Howard Gardner’s (1983) theory of how separate sections of the brain have specific learning functions – His proposed nine intelligences are listed as follows:

*Bodily-Kinesthetic Intelligence* – “ability to use one’s body in highly differentiated and skilled ways” (Gardner, 1993, p. 206)

*Existential Intelligence* –Gardner calls existential intelligence, “the capacity to locate oneself with respect to the furthest reaches of the cosmos” (1999, p. 160); concerned with discovering life’s meaning

*Interpersonal Intelligence* – “ability to know other people—to recognize their faces, their voices, and their persons; to react appropriately to them; to engage in activities with them” (Gardner, 1999, pp. 262-263)

*Intrapersonal Intelligence* – “knowledge of the internal aspects of a person” (Gardner, 2006, p. 17); “ability to work well alone” (Gardner, 1999, p. 263)

*Linguistic Intelligence* – special ability for writing and learning language (Gardner, 1999)

*Logical-Mathematical Intelligence* – special capacity for learning science or mathematics (Gardner, 1999)

*Musical Intelligence* – ease of learning to play instruments; Gardner considers it related to linguistic intelligence (1999)

*Naturalist Intelligence* – ability to recognize species of animals and plants (Gardner, 1999)

*Spatial Intelligence* – artistic and navigational ability (Gardner, 1999)

*Moore's Theory of Transactional Distance* – “the physical distance which leads to a communications gap, a psychological space of potential misunderstandings between the behaviors of instructors and those of the learners” (Moore, 1996, p. 200). Nine years later, Moore and Kearsley (2005) added that this gap which exists “has to be bridged by special teaching techniques” (p. 224).

*Online-Enhanced Corrective Feedback (OECF)* – “an online peer tutoring technique” (Dekhinet, 2008, abstract)

*Online Learning Readiness Survey (OLRS)* – the purpose of the survey was to measure student readiness for learning online using a “learner characteristics” and a “technology capability” subscale (Dray, Lowenthal, Miskiewicz, Ruiz-Primo, & Marczyński, 2011, p. 32)

*Online Courses* – Classes taken entirely online, with no face-to-face or classroom instruction involved

*Problem-Based Learning (PBL)*—“individualized learning which results from working toward the solution or resolution of a problem...the learner takes on the problem first. The problem serves as a stimulus for learning” (Barrows, 1979, p. 1).

*Project-Based Learning* – student-centered method of teaching which assigns objectives to students for the students themselves to develop projects (Baş, & Beyhan, 2010)

*Q statistic* – formulated by Cochran (1954); used “to validate the use of a random effects analytic base” (p. 2073)

*Second Language* – a language learned other than one’s native language; interchangeable with foreign language

*Self-Directed Learning* – learning “without the presence of an instructor” (Simmering, Posey, & Piccoli, p. 101)

*Self-Efficacy* – “the conviction that one can successfully execute the behavior required to produce the outcomes” (Bandura, Adams, & Beyer, 1977, p. 126)

*Social Cognitive Theory* – “accords a central role to cognitive, vicarious, self-regulatory, and self-reflective processes” (Bandura, 2001, p. 267)

*Social Presence* — “the ability of learners to project themselves socially and emotionally in a community of inquiry” (Rourke, Anderson, Garrison, & Archer, 1999, p. 52)

*Statistical Package for the Social Sciences (SPSS)* - statistical software used to analyze data

*Survey Monkey* – web site for constructing surveys for personal use, business use, or educational use

*Stepwise Regression Analysis* – “A type of multiple regression analysis in which a set of measured predictor variables first is used to construct a prediction equation using stepup multiple regression, and then this equation is subjected to stepdown multiple regression”(Gall, Gall, & Borg, 2007, p. 654)

*Synchronous Approach* – when instructor and students meet together online for class

*Title I* – a government program with a goal to help the poor have the same opportunity as other children to receive a quality education (ED.gov, 2011)

*TOEFL* - Test of English as a Foreign Language - tests non-native English speakers’ ability to read, write, speak, and listen to English

*Web-Based Instruction (WBI)*– “hypermediabased instructional program, which utilizes the attributes and resources of the World Wide Web to create a meaningful learning environment where learning is fostered and supported” (Khan, 1997, p. 6; Sitzmann, Kraiger, Stewart, & Wisner, 2006).

## CHAPTER TWO: REVIEW OF THE LITERATURE

Technology in the classroom has been a popular topic for decades, and much has been published on students' attitudes and perceptions of online learning. A continuing trend has been toward hybrid and online language classes, with more community colleges and universities offering language courses online (Albert & Johnson, 2011). Until recently, there had been few online language classes as compared to traditional language classes, possibly because listening and speaking are considered crucial aspects of acquiring a language. According to the North Carolina College System's Virtual Learning Community, online Spanish classes have increased from 51 in the spring of 2013 to 65 in the fall of 2013. Hybrid classes also increased from 14 in the spring of 2013 to 17 in the fall of 2013. The hybrid Spanish class offerings practically doubling in the spring of 2014 to 32. The online Spanish classes only increased by two (2014). Hybrid classes have made distance learning more accessible to students, as they combine a traditional classroom with online instruction. Through advances in technology, numerous methods are rapidly becoming available which make language more communicative online, such as interactive classes, chatrooms, and opportunities for students to work in groups, so one important question to consider is, "How do students perceive online and hybrid learning?" Some students are reluctant to enroll in online or hybrid language courses although distance learning has improved measurably, is convenient, and is affordable when compared to traditional classes. This study examined why certain students might prefer face-to-face courses, while others prefer online or hybrid classes. Although numerous studies exist on online learning, not many have addressed the topic of online language courses, especially students' attitudes toward online and hybrid courses (Wesely, 2012). A short historical background on several important figures in linguistic theory follows before examining the previous research on the topic.

## Historical Background

Several important researchers have developed interesting theories which can be applied to learning language and technology. The first important theorist, a political activist, philosopher, and linguist who uses a “biolinguistic” lens to view language is Noam Chomsky (2005).

Chomsky (2005) concentrated “on a component of human biology which enters into the use and acquisition of language” (p. 2). He (Chomsky, 1965) spoke of language as “innate” and something which humans acquire naturally through a “language acquisition device” (p. 32;

Trachsel, 2010). Another famous linguist is Stephen Krashen (2008), professor at the University of Southern California, who is known for his research on reading and language acquisition.

Krashen (1982) formed five hypotheses for language acquisition: the acquisition-learning distinction, the natural order hypothesis, the monitor hypothesis, the input hypothesis, and the affective filter. He credits James Asher, Harris Winitz, and others for his input or comprehension hypothesis. Krashen explains:

According to the Comprehension Hypothesis, most of our language competence is the result of what we have subconsciously acquired, or absorbed, not what we have learned consciously, and real language competence is stored in the brain subconsciously. We are not aware we are acquiring when we are acquiring, and after we acquire, we are not aware that anything has happened. (2008, p. 180)

Krashen (1998) felt that students who were encouraged to speak a language before they were ready to do so would become anxious and less likely to perform well. He called the effect an “affective filter” which included any barrier to language learning such as nervousness, “lack of confidence, and lack of motivation” (Johnson, 2004, p. 48; Krashen, 2004). Krashen’s (2004)

affective filter can suggest a reason why some students are reluctant to take foreign language classes online.

Albert Bandura (1977), noted psychologist, professor emeritus at Stanford University, and researcher, focused on a social aspect of learning which he felt was crucial to learning and involved the “rate of language development” (p. 176). He later called it the social cognitive theory (Bussey & Bandura, 1992). According to Bandura (2000), “Social cognitive theory adopts an agentic perspective in which individuals are producers of experiences and shapers of events” (Abstract).

### **Theoretical Background**

Howard Gardner (1983) has published numerous books and journal articles, but is probably best known for his theory of multiple intelligences. He believes that everyone has different sections of the brain where certain learning takes place. According to Gardner, people can be visual learners, auditory learners, hands-on learners, collaborative learners, or even learn best alone. Musical and linguistic ability play an important role in his theory. His nine multiple intelligences are the topic of a number of studies, and he is often cited in educational and language texts (Gardner, 2006). Jean Piaget, Swiss philosopher and biologist, is another important thinker who studied his own children’s development in order to better understand the adults’ development (Furth, 1969).

#### **Piaget’s Theory of Intelligence**

Piaget (Furth, 1969) mentioned seven stages in his theory of intelligence. The first two are founded on biological behavior and organization. The third “is the totality of behavioral coordinations which characterize behavior at a certain stage” (Furth, p. 245). The fourth was “operations” (Furth, p. 247), to which he assigned different stages of development. The next one

was based on logic and intelligence. The sixth was “figurative knowledge and memory” (Furth, p. 250) and the seventh is “symbol functioning” (Furth, p. 251). Piaget (1953-1954/1981) stressed an important relationship between “intelligence and affectivity” (p. 73).

### **Multiple Intelligences Theory**

In Gardner’s (1983) opinion, Piaget’s ideas were “limited, yet totally accurate” inside their “own restricted domain” (p. 20). Gardner originally proposed seven intelligences on which he believed all learning was based. These include linguistic, musical, logical-mathematical, spatial, bodily-kinesthetic, and the two personal intelligences. Personal intelligences can be interpersonal and intrapersonal. His intelligences are fairly straightforward. Linguistics deals with ease of language use, musical concerns any musical talent such as playing an instrument, logical-mathematical involves mathematics, bodily-kinesthetic concerns movement such as dance, exercise, or any hands-on activity. Spatial intelligence is a little more complicated. It is the ability “to perceive the visual world accurately, to perform transformations and modifications upon one’s initial perceptions, and to be able to re-create aspects of one’s visual experience, even in the absence of relevant physical stimuli” (Gardner, 1983, p. 173). Later, he added naturalist intelligence as the eighth intelligence and existentialist intelligence as the ninth (Gardner, 1996, 2006). Although he considers the intelligences to be separate entities, each one can interface with other intelligences.

Gardner (1995) felt that intelligence testing in the past had been limited and restrictive and that the “intelligences need to be approached in their own terms (an ‘intelligence-fair’ way) rather than through the language-logic lens of a traditional test” (p. 16). Gardner discovered eight ways to identify intelligence. The first is the brain’s capacity to isolate a damaged section. Another is by examining “idiots savants” or “prodigies” (Gardner, 1983, p. 63). The third way is

locating a part of the brain where “core operations” occur. The fourth is to identify an “identifiable developmental history, through which normal as well as gifted individuals pass in the course of ontogeny” (Gardner, p. 64). Gardner bases an intelligence on its evolution in history. The sixth sign of an intelligence is that it can be tested by experiment. Although he questions the reliability of standardized assessments, Gardner contends that tests such as IQ tests can identify an intelligence, so here he contradicts himself. The final criterion is an intelligence’s ability to be encoded “in a symbol system” (Gardner, p. 66).

### **Learner Autonomy**

The terms self-directed learner and learner autonomy describe a person’s ability to gain knowledge outside of the classroom (Confessore, 1992) and have become increasingly prevalent in second language learning (Andrade & Bunker, 2009; Bhattacharya & Chauhan, 2010; Eneau, 2008; Jingnan, 2011; Yildirim, 2012). Since an important focus of this study was how students perceive themselves as distance language learners, learner autonomy played a crucial role. Gary Confessore views self-directed learning as a “natural phenomenon” (p. 2). He gave the example of Terry Anderson, a hostage in Lebanon for almost seven years, who kept his mind very much alive by sharing his knowledge with his fellow prisoners, as they shared their expertise with him and with the others in turn. The prisoners gained not only hope but also useful new skills and knowledge during their horrendous ordeal. Although numerous definitions exist for learner autonomy and self-directed learning, the author of this study will define learner autonomy as learning which takes place outside the classroom and independent of professor or peers.

### **Related Research**

Marsden and Graham (2009) wanted to identify the most common topics in doctoral studies based on second language learning. In their review, they used the key words “teaching



and learning” (Abstract) to identify which themes might arise. The 47 theses of PhD students in England which resulted from the search revealed the following topics: “the use of computers, error correction, language portfolios, learner strategies and communicative-style activities” (Marsden & Graham, 2009, Abstract). There were seven topics which involved discovering the effectiveness of a strategy. One particular area deficient in research was why certain students gravitate towards online study and others prefer the traditional classroom setting. More studies which reveal students’ learning styles and how they learn best are also urgently needed, especially in the area of language learning and technology, since online classes continue to expand.

### **An Overview of Qualitative Research**

Unfortunately, there is a dearth of quantitative research on student attitude towards distance learning in the second or foreign language classroom, but qualitative research is on the rise. Benson, Chik, Gao, Huang, and Wang (2009) examined 477 articles over a period of 10 years and discovered 450 qualitative studies. They stressed the need to improve qualitative research, as it is more subjective than quantitative research, and the meaning of the qualitative research is not always clear. The articles, ranging from years 1997 to 2006, were found in 10 journals. Out of 225 identified as case studies, few of them were sufficiently explained to be labeled case studies. Case studies should involve a variety of methods of data collection (Gall, Gall, & Borg, 2007), but many of these studies employed only one method. Benson, et al. concluded that although the growth of qualitative research has continued since the 1990s, the quality has not been maintained and much improvement is necessary in order to clarify and to identify the factors involved. Bensen et al. (2009) believe that “ethnography and conversation analysis are the two forms of qualitative research in which language teaching and learning

researchers engage most often” (p. 85). Chongwon and Hye-Won (2010) examined 38 qualitative case studies over a period of three years. They discovered a need for more triangulation and validity.

### **Japanese Studies**

In the Kanto region of Japan, 47 university students responded to questionnaires about their second language experience in high school (Kikuchi, 2009). Kikuchi reported that their dissatisfaction with learning English was due to the emphasis on translation, memorization, and to teachers who did not bother to fully explain the material. Several students were also unhappy with the pronunciation of English.

### **Chinese Studies**

In a Chinese case study by Yang (2009), 120 students ranging in ages from 11 to 16 interviewed adults for a historical inquiry. The students themselves collected the data, analyzed it, posted it on a web site, and then summarized their perceptions of the experience in this study. Afterwards, the students described their experiences with the computer-mediated project. Several students spoke of their difficulties and challenges. One student spoke about his self-regulated learning experience, “We learned how to face challenges and solve problems by ourselves. During the processes, we were stressed by the time constraints and uncertainty of the problem, and we learned how to tackle and solve those hurdles one by one” (Yang, 2009, p. 241). Yang was pleased that the students exercised their critical thinking skills during the case study, and that they were able to work together as a community of learners to complete the task.

Zhihong, Leijuan, and Xiaohui (2010) noted how China had for years followed the audio-lingual method, but recently was awakening to the more student-centered communicative approach and to the world of technology. The communicative and student-centered approach

used in their study included two longitudinal studies with questionnaires and tests. There were 130 university students in the study, none of whom were English majors. The students practiced authentic tasks in pairs and were tested after their work was completed. Part of the evaluation involved taping their responses to get a more accurate picture of their progress. The authors concluded that more communicative activities were needed in order for the students to be successful at learning English. They also decided that although the results were positive and hopeful, much more study needed to be conducted in this area before conclusions could be drawn. In addition, the technology aspect of the study was helpful and contributed positively to the overall research.

### **Additional Qualitative Studies**

Niekerk, Ankiewicz, and Swardt (2010) created “a process-based assessment framework” (p. 191) in their case study to assist teachers with language assessment. There were 17 boys and 16 girls who collaborated to create a healthy breakfast. After conducting interviews and observations, the authors claimed that the students gained knowledge during the project and that it was a success overall.

Meletiou-Mavrotheris, Lee, and Fouladi (2007) sought to discover the effectiveness of technology in the classroom. They interviewed college-level statistics students but found no significant differences between students who were taught with technology and those who were taught with traditional methods.

Winke, Goertler, and Amuzie (2010) implemented surveys in their quantitative/qualitative) study to discover whether or not or not students were willing to take an online class. The participants were 2,149 foreign language students from Michigan State University. The authors, using a chi-square test, found no significant differences between gender and student

willingness to take hybrid language classes, although several students mentioned their lack of computer accessibility. They did conclude, however, that females rated themselves less computer savvy than the males. The United States Census Bureau released the results to the latest census for 2012 in February, 2014, which revealed that computers are now in 78.9% of all homes, as compared to 18% in 1997, and 8.2% in 1984 (2012).

Bown and White (2010) used Bandura's social cognitive theory in their research involving 19 adults studying Russian in order to investigate how emotional factors affected the students' learning progress. Only one of the 19 students felt anxious and isolated with learning online and wanted to return to a traditional classroom setting.

### **Computer-Assisted Language Learning Studies**

Fidaoui, Bahous, and Bacha (2010) discussed ways to use the computer for language learning. They utilized observations, surveys, and interviews of 48 Lebanese fourth grade ESL students to discover whether or not implementing Computer-Assisted Language Learning Studies (CALL) helped motivate the students to improve their language learning. The students claimed that the computer activities were helpful, especially when two students were paired together.

Five Australian students learning Japanese were participants in a multi-media study by Kawaguchi and Di Biase (2009). The students expressed satisfaction with their online activities, but were not willing to forsake face-to-face learning. Wu (2009) tested his "autonomous" computer method on students and got significant results as compared to a group using traditional methods. Bahrani (2011) focused his study on 100 ESL Malaysian students and 100 EFL Iranian students in order to show the effectiveness of authentic media as compared to student collaboration. Each group was given a pretest of their level of fluency in English. Forty students

in each group were found to have similar levels of fluency. For a year, the ESL group practiced their speaking by interacting with English speakers, but the EFL group practiced by being exposed to authentic media. The Iranian EFL group's posttest scores were significantly higher than the Malaysian ESL group. Bahrani did not specify how many of each group were male and female, which may have contributed to the difference in scores, nor did he mention whether or not the EFL group had any English input from other sources.

### **Study on Lexia**

Macaruso, Hook, and McCabe (2006) utilized two computer-assisted Lexia programs to test their effectiveness for phonics instruction on first graders in an urban school. The Lexia software was a phonics-based program which includes "numerous activities which support learning and application of phonic word-attack strategies at the letter, word, sentence and paragraph levels to enhance automaticity in word recognition" (p.163). The results showed improvement in the computer-assisted group as compared to the control group, but not by a significant amount. What was significant, however, was a comparison of the results of the Title I group to the others. The Title I group showed significant improvement compared to the other computer-assisted group. The authors failed to mention that the Title I students received an extra 30 minutes of instruction daily, so it is not surprising that they improved more than the others. It would have been interesting to follow up with the same groups to see whether or not the students' reading skills remained the same, deteriorated, or continued improving in time.

A later study by Macaruso and Walker (2008) dealt with the Early Reading software by Lexia Learning Systems at the kindergarten level. In this study, eight "of the 12 low performers in the treatment group scored above the normed average (50) compared to only one of the 12 low performers in the control group" (p. 279). Macaruso and Walker decided to do a case study on

the low performers who had improved the most out of the poor performers. They found that one child had particularly supportive parents, and the teacher confirmed that another child had become one of her “top students by the end of the year” (p. 280). The case study was useful as it provided more details about the students who showed the greatest gains.

### **Meta-analyses**

A meta-analysis by Abraham (2008) analyzed the effectiveness of using computer-generated glosses as an aid in reading comprehension for second language learning. He found that the students did improve in their reading skills, but not by a significant amount. Cannalbur and Erdoğan (2008) conducted a meta-analysis on 78 studies on the “effectiveness on computer-assisted instruction” (Abstract). The mean effect size was .95, showing a positive effect of technology in the classroom as compared to a traditional classroom. This study was deficient in that the authors did not provide enough information about the grades and ages of the students in order to obtain a clear understanding of the results. K. Larwin and Larwin (2011) conducted their meta-analysis on research which spanned a period of 40 years. The researchers examined the effectiveness of computer-assisted learning on 70 studies on statistics. The overall effect size of 0.566 reveals a moderate gain in learning in the field of statistics with the use of computers.

Sitzmann, Kraiger, Stewart, and Wisher (2006) compared “web-based instruction” (WBI) to classroom instruction in their study. The researchers came to the conclusion that WBI was more effective than classroom instruction in several areas, including declarative knowledge. The “declarative knowledge effect size was .15 indicating that, on an average, WBI was 6% more effective than CI [Classroom Instruction] for teaching declarative knowledge” (p. 640). Another significant area was the positive impact of feedback, both in the classroom and using web-based

instruction. Their results counter the trend of much research that claims there is no difference in modes of learning on learning outcome (Russell, 1999).

### **Studies on Online Learning**

Technology has continued to be an important in education, and online classes are being offered increasingly. Several studies will be examined to find out student attitude towards online learning and its effectiveness.

#### **Meta-analyses**

Bernard, et al. (2009) conducted a meta-analysis on 74 studies to gauge the effectiveness of methods of instruction in distance and face-to-face classes. They examined the interaction between student and student, student and teacher, and student and content for achievement and attitude. According to the authors, the “overall unadjusted average effect size of 0.10 was significantly different from zero,  $z(73) = 3.52, p < .001$ , and significantly heterogeneous” (p. 1257). Tamim, Bernard, Borokhovski, Abrami, and Schmid (2011) chose 37 meta-analyses with a total of 1,055 studies for their second-order meta-analysis. They examined studies on the effectiveness of computer technology in the classroom. The authors chose the “random effects model” (p. 14) for analysis of the data since the meta-analyses contained a variety of technology, subject matter, and settings. A fixed effects model also revealed significant results. The authors found an overall significant effect size for both models ranging from 0.30 to 0.35.

Sosa, Berger, Saw, and Mary’s (2011) focus for their 45-study meta-analysis was comparing computer-assisted statistics classes to traditionally instructed classes. The average effect size of their meta-analysis was 0.33, which suggested that technology had a significant impact on classroom instruction.

Šumak, Heričko, and Pušnik (2011) investigated 42 studies to measure “e-learning acceptance” (p. 2067) in their meta-analysis. Using a random effects model, they found a “large effect size”...“in the relationship of PU (perceived use) on ATU (attitude toward use)” (p. 2076) for employees, students, and teachers. Employees were defined as those who studied at home for training or work purposes. Šumak used “the Q statistic, proposed by Cochran (1954)” (p. 2073) for a meta-analysis with a limited number of studies. The researchers discovered that “Q estimates for all path coefficients were significant, resulting in a rejection of the null hypothesis about homogeneity for all paths” (p. 2073).

### **Online Studies**

Students are not always eager to enroll in distance learning classes and often express anxiety when considering the switch to online learning (Kim, 2009; Sayadian & Lashkarian, 2010; Zaved & Zafar, 2010). Several important factors contribute to successful online learning. Some of these are self-directed learning, self-efficacy, motivation, and feedback. Kim (2009) explored the “self-directed e-learning environments” (p. 326) of 100 participants who found it more “motivationally challenging” (p. 326) to use an e-learning course alone, while others found the interactive parts of lesson especially helpful. The author concluded that although the students enjoyed several aspects of online learning, they also experienced challenges.

Murday, Ushida, and Chenoweth (2008) interviewed foreign language students at Carnegie-Mellon University in order to identify their perceptions and practices in learning a language in a hybrid class. One student commented that she preferred writing copious notes rather than trying to read her materials online, as writing facilitated learning for her. Although two frequent complaints of online and hybrid students were the lack of interaction with faculty and a lack of motivation, overall satisfaction was high. One difference the *t*-test results revealed



was that over time, the online students expressed more satisfaction with their distance learning classes than did the traditional classes.

Simmering, Posey, and Piccoli (2009), in a mixed-method designed study, measured computer self-efficacy and motivation to learn. There were 190 university students from an online college computer course who received a pretest, posttest, and several open-ended questions. The authors found that although computer self-efficacy did promote learning, it did not necessarily motivate students. A further result was that females were more motivated to learn online, but that males had higher self-efficacy scores. Another study involving gender by Seok, Kinsell, DaCosta, and Tung (2010) used surveys to compare 193 instructors and 143 students' perceptions of online study at the community college level. Using a one-way ANOVA, they found that both instructors and females had a significantly better perception of the effectiveness of distance learning than did the male students.

Murugaiah and Thang (2010) studied the writing assignments of their online students, who ranged in age from 23 to 72. The researchers were seeking the extent of "interactive and reflective learning" (p. 24) that the participants would achieve. The authors found that the students' writing did improve and that peer input seemed to be a motivating factor. Fujuan, Nabb, Aagard, and Kioh's (2010) qualitative study sought to discover how students felt about online learning. All but one of the students had previously taken an online course. Fujuan et al. came to the conclusion that because the students were learning a language, the task of online learning was especially challenging, although most of the students expressed satisfaction with the amount of new vocabulary they were learning throughout the course.

**Use of feedback.** Dekhinet (2008) studied the use of online enhanced corrective feedback (OECF) on 10 of his ESL students. The students expressed a positive experience

overall, but no conclusions could be drawn, since Dekhinet's research involved such a small number of participants. Bitchener and Knoch (2008) conducted a study in Auckland, New Zealand, on the effectiveness of corrective feedback. The study suggested that written feedback had a positive effect on learning, as those who were in the control group and who received no feedback performed worse than those students who received feedback. Bitchener and Knoch concluded that even one instance of written corrective feedback "had a significant effect, enabling the learners to use the targeted functions with greater accuracy over the ten-month period" (p. 209). A later study by Bitchener and Knoch (2009) consisted of 144 intermediate-low (as identified in the ACTFL Proficiency Guidelines, 1986) university students who had not been in the country more than 18 months. The students received a pretest, 30 minute mini-lessons with corrective feedback, and then a posttest. The results for all but the control group were statistically significant.

Bridge and Appleyard (2008) asked 47 students to submit papers online and later to fill out a survey about their preference for online submission and feedback versus traditional feedback. Over 50% of the students preferred the online submission, but several students expressed concern about whether or not their work was received. A majority of students also preferred online feedback rather than traditional paper-based feedback. The students gave reasons such as online submission saved money and time. A majority (88%) of the students claimed that online submission was more timely than traditional classroom submission, and of the 88%, 64% said that submitting online was "much quicker" (p. 646).

### **Challenges of Online Learning**

What are some of the factors that prevent students from attempting online learning? Liu, Liu, Lee, and Magjuka (2010) examined how cultural differences can affect language learning.

They interviewed seven students who had studied language in schools in the United States and in China. One student commented on the U.S. experience by saying, “Even if you have good results on the final test, you may get a low final grade if you did not interact enough with your peers during the course” (p. 182). Most of the interviewees expressed a preference for the American school system. Johnson (2011) studied 719 students to discover whether or not females were more proficient than males in their online management classes. They found no significant differences in gender.

### **Student Satisfaction**

Kupczynski, Mundy, and Jones (2011) studied graduate student satisfaction with online learning using a causal-comparative design. Their study explored expected GPA levels, “instructor presentation, feedback, caring and instructor rating” (p. 5). Using a survey, the researchers sought out differences and similarities in the variables and how these affected each other. The authors concluded that there was a significant relationship among all the variables, according to the “preliminary data” (p. 5), and the MANOVA showed that the students who expressed the highest levels of satisfaction with their courses also expected the highest grades. Kupczynski, et al. believe that self-efficacy may play a role in the noted trend of students expecting high grades based on their satisfaction.

Paechter, Maier, and Macher (2010) distributed surveys to 2,196 university students in order to discover their rate of satisfaction with their various online classes. They found students’ achievement was strongly linked to their contact with their professors, and that students needed sufficient computer skills in order to succeed in their classes.

Cobb (2009) surveyed 128 nursing students in order to identify their degree of satisfaction and social presence in their online courses. Short, Williams, and Christie (1976)

defined “social presence as a quality of the communications medium itself” (cited in Cobb, p. 242). They used a Cronbach’s alpha test, which measures “the internal consistency of a test containing items which are not scored dichotomously, based on the extent to which test-takers who answer a given test item one way respond to other items in a similar way” (Gall, Gall, & Borg, 2007, p. 637). “The Cronbach’s alpha for the Social Presence Scale was .87 and for the Satisfaction Scales was .85” (p. 248), which would be useful since both scores exceed .80. The study showed that students were generally more at ease with online classes than students previously surveyed. They also showed an interest in taking additional online classes.

Sampson, Leonard, Ballenger, and Coleman’s (2010) study involved 56 university students in Texas who were given surveys to discover their level of satisfaction with their online classes. The participants were two cohort groups: one group received the surveys in 2005 and the other in 2009. The area where students were most satisfied with their online classes was assessment. One surprising result was that both groups rated working in cohort groups as the activity they disliked the most.

Kellog, Oliver, and Patel (2012) implemented closed and open-ended questions in their surveys to collect both quantitative and qualitative data in their quest to discover high school students’ attitudes towards their virtual classes. Since previous surveys revealed significant differences between the foreign language classes and other subjects, the researchers conducted a follow-up study hoping to discover the reasons for student frustration with virtual language learning. The students had originally scored their language classes lower than every other subject in several areas. The second set of surveys was distributed to 219 high school students and 19 teachers. The students claimed they were less successful at learning a language online than other subjects, and that they needed more help from their teachers with language classes than with

other subjects. Even the teachers felt that their language students were more successful than they themselves felt. One student remarked, “Languages are hard to learn without any direct face-to-face instruction time from the teacher” (p. 275).

### **Comparing Online Classes to Traditional Classes**

Pichette (2009) surveyed 186 adult French speakers who were taking either Spanish or English as a second language. The results of the *t*-test showed that the participants’ level of anxiety was the same for both English and Spanish. The students were tested for general anxiety, writing anxiety, and reading anxiety. Although the anxiety scores were slightly higher for English, it was not enough to be significant. There also proved to be no significant difference between online or traditional classes. Reeves’s (2008) study involved 120 community college students whose levels of satisfaction were tested for both online and traditional classes. The significant difference he found was with the students who held jobs and took classes. These students had the highest levels of satisfaction with online classes. A one-way between-groups ANOVA found a significance level of 0.094. More studies are needed which include the comparison of working students with non-working students in their statistical analysis.

Ziyadah (2012) examined female attitudes in Saudi Arabia towards online learning in her dissertation. Seven hundred graduate assistants, administrators, and faculty completed a 5-point Likert-type survey and 20 others participated in the qualitative portion of the study, which consisted of five open-ended questions. For most of the factors involved in the quantitative study, there were no significant differences, except for “female attitudes toward adopting online education” in the 3 areas of “lack of release time, lack of support and encouragement from institution administrators, and dislike for the collaborative nature of online learning” (p. 108). A Chi-square test applied to these three factors revealed a significance of less than 0.05. One

participant of the qualitative portion commented that “distance education was very flexible in terms of time and place” and another claimed that, “It is good but is not equal to traditional education because of the absence of communication between student and teacher” (p. 136). She felt that a traditional classroom provided a higher caliber of education than did online courses. Another student believed that both online and traditional classrooms provided a high standard of education, but that “distance saves time” (p. 136).

Glover and Lewis (2012) explored whether or not college students preferred online or face-to-face classes. They surveyed 152 university students, 106 females and 46 males, and divided the responses into three categories containing those who preferred online, hybrid, or traditional courses. A one-way analysis of variance revealed significant results “ $F(2, 149) = 36.894, p = .000, \eta^2 = .33$ ” (p. 11). The researchers followed up with a Tukey HSD. The Tukey test indicated that “participants who preferred taking online courses took significantly more online courses ( $m = 6.85$ ) than participants who preferred either face-to-face ( $m = 2.098$ ) or blended ( $m = 3.33$ ) courses” (p. 11-12). The Tukey test also showed that students who had previously taken online courses were more likely to prefer them in the future. One drawback of this study was the high ratio of females to males, which could possibly demonstrate which females tend to prefer online courses. More research is needed with matched participants in order to come to any conclusions of significance in this area.

Rabe-Hemp, Woollen, and Humiston (2009) surveyed online and traditional students to identify the differences and similarities in their learning styles. They found that the online students spent considerably more time doing independent study and contacting their professors than did the traditional students. The authors concluded that the students were less satisfied with their online classes than with the traditional classes. This suggested that students need

preparation for the diverse environment of an online class. The main problem with the study was the sample size. There were only 26 online students as compared to 256 traditional students. No conclusions can be reached with such a disparity in the sample size.

Safar (2012) surveyed the perceptions of 700 female Kuwaiti university students towards online training. The majority of the students responded favorably, “about 98 percent” (p. 453). One drawback of Safar’s study was the absence of male students, which may have yielded significantly different results.

Harrington and Loffredo (2010) focused on personality types in order to investigate why certain students prefer online instruction and others prefer traditional classroom instruction. The researchers used a “chi-square test for independence” (p. 92) and discovered that shy students preferred online instruction and that extroverts preferred face-to-face instruction.

Wagner, Garippo, and Lovaas (2011) conducted a longitudinal study on the differences between traditional and distance education. The research covered a period of 10 years involving the same curriculum both online and face-to-face. The participants were 289 males and 317 females. Although an “independent samples *t*-test indicated no significant difference (significance level .057) in student performance between males and females for all courses” (p. 69), “a gender main effect ( $F= 4.905$ , significance level .027) was found” (p. 69).

A study by Ernst (2008) compared online classes to hybrid classes following a “quasi-experimental posttest only design” (p. 42). Forty-six university students completed an assessment and survey after half of them received lessons traditionally and the other half participated in hybrid online classes. The non-parametric “Kruskal-Wallis test, with an alpha value of .05, the calculated proportional value of 0.7313 indicated that the null hypothesis could not be rejected” (p. 246). Ernst concluded that no significant differences in learning were

achieved by either group. Also, 85% of the online students were content with their classes, believing that they received the same instruction as the traditional group. Ernst did not account for gender differences. There were only three female participants out of the 46 university students. It would be interesting to see the study repeated with more of a matched gender group.

Blake, Wilson, Cetto, and Pardo-Ballester (2008) tested the proficiency of university Spanish students. The participants included 233 students in traditional classrooms and 85 students in either a hybrid or completely online class. “Individual *t*-tests revealed no significant differences” (p. 121) in any of the learning modes. The disparity in the number of traditional students as compared to online and hybrid students must be taken into account as equal numbers of students in all modes of learning could make a significant difference.

Zi-Gang (2012) researched an asynchronous and blended approach to learning English online. He considers a synchronous approach as the more traditional compared to asynchronous, which would be the more modern approach. It is an interesting viewpoint, as collaborative learning has been emphasized for so long, and asynchronous learning focuses more on autonomous learning. Zi-Gang’s study involved 70 English students and revealed which students performed better with an approach which embraced both synchronous and asynchronous instruction.

A study to identify the level of student satisfaction with online and face-to-face classes showed that the most important factor was faculty involvement (Yen & Abdous, 2011). A higher level of faculty involvement with their classes led to a higher rate of student satisfaction, regardless of whether or not the class was entirely online, hybrid, or face-to-face. Yen and Abdous’ findings also concurred with Russell’s (1999) prevalent “no significant differences” theory” as there were no differences in learning outcomes among the different learning modes.).



### **Self-study or collaboration?**

Chih-Cheng, Hsin-Jung, and Hsien-Sheng (2011) tested 91 Taiwanese middle school students on the effectiveness of online student collaboration. They concluded that although several students who worked on their own did better at first, in the end, working together with other students helped student retention.

Vaughn, Martinez, Linan-Thompson, Reutebuch, Carlson, and Francis (2009) conducted two experiments on 2,507 seventh-grade English language learners in order to discover the effectiveness of group work rather than self-study. Their research methods included video clips and collaborative learning activities. The posttest scores were analyzed with “a three-level analysis of covariance” (p. 312). The ANCOVA revealed significant differences when the control group was compared to the experimental group in the areas of vocabulary and comprehension. The students who received treatment performed “at significantly higher levels than students in control sections postintervention,  $t(13) = 14.31, p \leq .001$ ” (p. 312) in the area of comprehension. The results for vocabulary were similar: “ $t(13) = 4.026, p = .002$ ” (p. 312).

Mirici (2010) views prestudy as a way to promote a more effective autonomous style of learning a foreign language. He randomly chose 36 adult ESL students at the same level of proficiency for his mixed methods study. The participants were assessed with an attitude pretest and posttest before and after their learning activity. Half of the students used a dictionary as a prestudy tool and the others used specific handout activities as a preparatory activity. A Wilcoxon signed rank test for paired samples revealed that the dictionary group showed no significant difference between pretest and posttest scores, but the handout group results were significant “( $z = -3.42, p < 0.05$ )” (p. 193). His interviews with several students confirmed the positive results.

Loewen and Reissner's (2008) study involved 14 ESL students from various countries. The researchers compared face-to-face communication to online communication in order to discover whether or not there were any differences or similarities. The students in the face-to-face group used oral communication, and the online group used written communication. All communication was transcribed for the study. The researchers found that online communication was very different, possibly due to the fact that it was possible for the online students to correct their writing in the chatroom, and they felt they might be expected to make written corrections, especially if a teacher were present in the chatroom. Students who had no instructor in the chatroom did not attempt to correct their mistakes or the mistakes of their peers. An important variable of the study to consider is the Language Acquisition theory of the effectiveness of correction. One major drawback of the study was that Loewen and Reissner failed to collect demographic data for the face-to-face group, thus limiting the usefulness of the results of the study.

Küçük, Genç-Kumtepe, and Taşcı (2010) conducted a mixed methods study of 139 online college language students using Kolb's Personality Style Inventory (2005, cited in Küçük, et al., 2010). They found that students frequented discussion boards and handled problems according to their personality styles.

### **Research Involving Multiple Intelligences**

The first study by Pérez and Beltrán (2008) involved 113 learning disabled children, ranging in ages from 11 to 16, who were tested in science, mathematics, and language in a quasi-experimental design that used a pretest, posttest, and a control group. The control group had higher scores on the pretest than the experimental group, but lower than the experimental group after the treatment. The results of the posttest in all three subjects were statistically significant,

suggesting that learning improved when the multiple intelligences theory was used in the curriculum. Baş and Beyhan (2010) conducted an experimental study on 76 Turkish elementary students to identify the effectiveness of combining project-based learning and multiple intelligences theory. The researchers found significant differences ( $p = .0019$ ;  $p < .05$ ) in the posttest scores of the control group and the experimental group (p. 376). They also discovered that the children not only enjoyed the projects, but that they also performed better than the students who were taught using traditional methods.

Mulhollen (2006), in her doctoral dissertation, sought to demonstrate a relationship between certain multiple intelligences and attitudes towards distance learning in a setting of high “transactional distance” (p. 1; Moore & Kearsley, 1996). Moore’s Theory of Transactional Distance involves “the physical distance which that leads to a communications gap, a psychological space of potential misunderstandings between the behaviors of instructors and those of the learners” (p. 200). Nine years later, Moore and Kearsley (2005) added that this gap that exists “has to be bridged by special teaching techniques” (p. 224). Moore (1973) believes that “more autonomous persons will be attracted to more distant [sic] methods of learning and teaching...(so) the kinds of people who participate successfully in such programs will be measurably more autonomous than learners in less distant programs” (p. 674). He further developed his ideas into a Theory of Transactional Distance. Mulhollen’s (2006) dissertation study was composed of 65 adults who were either students in a physician assistant program or recent graduates from the program. Of the 65 adults surveyed, 46 responded. Mulhollen’s second research question sought to discover a relationship between student attitude and multiple intelligences. An analysis of variance for this relationship “demonstrated a  $p$ -value of 0.028” (p. 114). According to the researcher, the “results demonstrated that these learners in this high

transactional distance environment that engages a variety of intelligences demonstrated positive attitudes toward independent learning” (p. 111).

### **Multiple Intelligences and Language Learning**

Several studies have been conducted to show the effectiveness of incorporating the multiple intelligences into the language curriculum. One such study by Epelbaum (2007) involved a reading case study of a student she tutored named Supa, a tenth-grade ESL student. Supa was assessed with a Multiple Intelligences Inventory, which showed her highest ratings to be in interpersonal and verbal-linguistic intelligences. Using these strengths helped Supa get through difficult reading passages which Epelbaum read along with her. Epelbaum believes that multiple intelligences can be used to help students excel at reading.

Wu and Alrabah (2009) conducted a survey of 250 Taiwanese and Kuwaiti university students to identify which of the multiple intelligences were prominent in order to understand students' individual differences in learning styles and their effect on learning a language. They concluded that the “Taiwanese group’s general profile was mainly visual, interpersonal, musical, linguistic, logical-mathematical, intrapersonal, kinesthetic, and lastly naturalist, while the Kuwaiti group was mainly interpersonal, visual, kinesthetic, logical-mathematical, linguistic, naturalist, intrapersonal, and lastly musical” (p. 121).

**Turkish studies.** İşisağ (2008) examined multiple intelligences theory for teaching language by conducting an inventory of 220 students in order to identify which of the eight intelligences was more prevalent. The students were chosen at random and were either first- or fourth-year English language students. Results showed that interpersonal and intrapersonal intelligences were the most prevalent, followed by the naturalist intelligence (p. 361). For the fourth-year students, the most common intelligences chosen were “the interpersonal intelligence,

the verbal-linguistic intelligence and the intrapersonal intelligence” (p. 362). The author believes the students chose these three because they liked to work collaboratively in the classroom (p. 362).

Saricaoğlu and Arikan’s (2009) research involved 144 language students from a Turkish university in order to determine whether or not using multiple intelligences theory facilitated language learning. The authors employed an inventory of 10 questions, constructed by Armstrong (1994), on each of the seven intelligences. The authors included information on the students’ parents in order to discover whether or not they shared similar intelligences with their children. Using a one-way ANOVA, they did not discover any relationship between the intelligences of parents and their children. They found that the most common intelligence among the students was the logical-mathematical intelligence, followed by the spatial intelligence, but did not discover any significance between academic scores and the different intelligences.

**A multiple intelligences study in Malaysia.** Wei Hui and Sulaiman (2009) included 75 beginning Japanese students at a university in Cyberjaya in their examination of the multiple intelligences. The authors felt that Gardner’s (2006) eight intelligences could be particularly useful in Malaysia, as so many students speak different native languages, because the variety of cultures is so great. In addition, Japanese is a difficult language for Malaysians to master, as it is not an Indo-European language. The authors sought to discover “the levels of multiple intelligences” and “the levels of the correlations among multiple intelligences of Japanese language students” (p. 566). Although their study was descriptive, they used the “Pearson’s product-moment correlation coefficient” (p. 570) to determine whether or not a correlation existed among the differing intelligences. Wei Hui and Sulaiman discovered that students who

showed a logical-mathematical intelligence performed well in learning Japanese. They also found that “there was a significant positive relationship between the mean of intrapersonal and [the]other five intelligences” (p. 571).

**Research in Iran.** Mahdavy (2008) compared results of the Test of English as a Foreign Language (TOEFL) to the International English Language Testing System (IELTS) of 268 Iranian students who were studying English as a foreign language to their multiple intelligence results. First, they were provided a questionnaire in order to discover their areas of strength and weakness in multiple intelligences. Then, one section was given the TOEFL and the other the IELTS. The author found that all the “intelligences positively contribute to both TOEFL and IELTS listening comprehension performance, but from among the 8 intelligences only linguistic intelligence has a statistically significant relationship with the listening proficiencies” (p. 122). The author also performed a stepwise regression analysis. It demonstrated that the “the only predictor of IELTS listening performance” was linguistic intelligence (p. 122).

Naeini and Pandian’s (2010) also used the TOEFL listening proficiency test in their study comprised of 60 Iranian university students who were studying English as a foreign language. Their study used a 5-point Likert scale to gauge the strength of each of the eight MIs in each participant. Their quantitative study used a correlational design which tested their theory with a “Pearson product-moment correlation coefficient ( $r$ )” (p. 107) to analyze the data. It found no significant relationship between the multiple intelligence “profiles and listening comprehension” (p. 109) or between the profiles and students’ attitudes towards learning English.

Tahiri and Divsar (2011) surveyed 90 EFL students from the Islamic Azad University to classify their multiple intelligences. The inventory they chose was found to be reliable and valid. Results showed that “Iranian EFL learners are ‘medium’ strategy users. This means that they

sometimes use LLSs (language learning strategies)” (p. 129) and that metacognitive strategies were the most frequently used.

Soleimanil, Moinnzadehl, Kassaianl, and Ketabil (2012) examined the effectiveness of employing multiple intelligences to university-level English courses in Iran. Sixty-one students were divided into an experimental and control group for the quasi-experimental study. Independent sample *t*-tests on the reading comprehension, vocabulary, and structure tests resulted in a significance of .004, .000, and .000 respectively, when the experimental and control groups were compared.

### **Multiple Intelligences and Technology**

The topic of Jackson, Gaudet, McDaniel, and Brammer’s (2009) research was utilizing technology to “teach to the multiple intelligences” (p. 75). The authors contend that most teachers continue to lecture as they always have and refuse to try anything new. They also mention the absence of teaching to the intrapersonal intelligence, to the emotional or feeling part of an individual. Jackson et al. discussed “problem-based learning (PBL)” (p. 76) as a useful strategy for learning, especially when combined with multiple intelligences theory.

### **Summary**

Several studies presented the attitudes of students towards computer-assisted classes, online classes, and foreign and second language learning in general. The results gave evidence that independent learning abilities as elaborated by Piaget and intrapersonal intelligence as proposed by Gardner are necessary for successful online language acquisition. Other studies also suggest that collaboration and social learning as defined by Bandura and Gardner’s interpersonal intelligence, play a crucial role in language learning, both in and out of the classroom. The current study hopes to confirm that independent learners should function well in online classes,

and social learners should generally function better in a classroom. More research on students' attitudes towards online and hybrid classes can provide language instructors with tools to help their students overcome any anxieties they might have about taking language classes in hybrid or online form. Chapelle (2009) discussed the need for a new direction in second language theory with the advent of computers and online classes. Wesely (2012) also pointed out the need for more research in areas such as "hybrid versus face-to-face learning environments" (p. 108). The researcher hopes that this study revealed some interesting student perceptions on distance learning.

Research shows that interpersonal intelligence is evident both in the classroom and online when interaction is involved. This researcher could not identify enough studies dealing specifically with students' perceptions of online classes, and whether or not students have a higher level of interpersonal intelligence, that they would necessarily prefer traditional classes. More thorough studies are needed to test students' intelligences and their effect on perceptions of e-learning. The author believes that online instruction and Gardner's theory need more research in the area of second language acquisition. The next chapter will cover the methodology used in this research study.



## **CHAPTER THREE: METHODOLOGY**

Although technology integration is an integral tool for the classroom, some students still experience anxiety towards technology and learning a language, due to its many challenges (Kim, 2009; Sayadian & Lashkarian, 2010). This study used a causal-comparative and correlational design as it explored student readiness and satisfaction towards learning language online, and examined the differences between distance and classroom language learners. The participants were first- and second-year foreign language college students, who either took their classes fully online, mostly online (hybrid), or face-to-face.

### **Research Design**

The study employed a causal-comparative and correlational design in order to identify the multiple intelligences of both online and traditional language students and to measure their satisfaction with their classes. The research was quantitative and used surveys to reveal students' attitudes towards their classes. The study was non-experimental, so random sampling or assignment was not necessary. Survey Monkey randomly assigned the surveys, but the students who responded were volunteers. The independent variables were modes of language learning, which were separated into traditional, hybrid, and online language classes. The dependent variables were divided into two subgroups. The first subgroup, online learning, had two variables, student satisfaction with online language learning and student readiness for online language learning. The second subgroup, learner characteristics, also had two variables, interpersonal intelligence and intrapersonal intelligence (Dray, Lowenthal, Miskiewicz, Ruiz-Primo, & Marczynski, 2011; McClellan & Conti, 2008). Community colleges and universities which offer both traditional and online language classes were included. Three research questions and null hypotheses were proposed for examination.

## Research Questions and Hypotheses

The following research questions were proposed for examination in the study:

**Research Question 1:** Is there a statistically significant difference between students who attended an online/hybrid foreign language class and those who attended a traditional foreign language class on their level of online readiness?

This question was answered by the results from the OLRs section of the Multiple Intelligences and Online Learning Readiness Survey.

**Research Question 2:** Are the participants' levels of interpersonal and intrapersonal intelligences significant predictors of online readiness?

This question was also answered by the results from the MI and OLRs sections of the Multiple Intelligences and Online Learning Readiness Survey.

**Research Question 3.** Are there statistically significant differences between those participants who prefer hybrid, online and those participants who prefer traditional foreign language classes on their level of interpersonal and intrapersonal intelligence?

This question was answered by the results from the MI and OLRs sections of the Multiple Intelligences and Online Learning Readiness Survey.

The null hypotheses are as follows:

**H<sub>0</sub>1:** There will not be a statistically significant difference between students who attended an online/hybrid foreign language class and those who attended a traditional foreign language class on their level of online readiness.

**H<sub>0</sub>2:** The participants' levels of interpersonal and intrapersonal intelligences will not be significant predictors of online readiness.

**H<sub>03</sub>:** There will not be statistically significant differences between those participants who prefer hybrid, online and those who prefer traditional foreign language classes on their level of interpersonal and intrapersonal intelligence.

### **Participants**

The participants were community college and university students in their first or second year of a foreign language. Students in their second year had to be considered as the sample size would have otherwise been too small. The students were from several postsecondary institutions in Virginia and North Carolina which offer foreign or second language online, hybrid, and face-to-face classes. The study involved university and community college students rather than elementary or high school students, since studies which focus on higher education students are deficient, especially in the area of online foreign language studies. The researcher hoped to identify a volunteer sampling (Gall, Gall, & Borg, 2010) of at least 400 foreign language postsecondary students.

The first survey was distributed to 3,977 foreign and second language students from 10 community colleges and universities toward the end of the 2013 Spring semester. Three hundred and six students responded to the survey. Of that number, 44 were removed from consideration due to factors such as being underage or having an insufficient response. The second survey was sent to 2,177 foreign and second language students from nine community colleges a month into the 2013 Fall semester. One hundred eighty-five students responded to this survey and 106 responses were utilized.

### **Setting**

The setting was postsecondary education institutions in Virginia. There are few online language classes offered as compared to traditional classes in Virginia, so North Carolina

universities and colleges were also included in the study. Another problem with a Virginia setting was that for every online class offered, usually twice as many face-to-face classes were offered and sometimes several times more. Some schools only offered classroom language classes or online classes, but not both, so they could not be included. The demographics of the schools varied greatly. Several schools are located in rural areas and their offerings of language classes are extremely limited, while others offer a wide variety of face-to-face, hybrid, and traditional online classes. Some institutions warn that online language classes are not for beginners, others require group work, and many are virtual classes, and some do not allow the credits earned in online classes to equate to credit earned in a “traditional” class or to transfer to traditional classes, so the researcher expected to find a much higher number of traditional classes. She hoped that by using a large sample of all three modes of learning to obtain enough data to find answers to the study’s research questions.

### **Instrumentation**

This study used surveys to identify differences in students’ readiness and satisfaction with their online and face-to-face language classes, and to identify whether or not the students were interpersonal or intrapersonal learners. A cover letter and general demographics questions such as age and length of time studying the language was included with the survey. The survey combined a multiple intelligences survey with an Online Learning Readiness Survey(OLRS), (Dray, Lowenthal, Miskiewicz, Ruiz-Primo, & Marczyński, 2011; McClellan & Conti, 2007;). In addition, after receiving permission from the authors, wording was added to both surveys to refer the potential respondents to language learning rather than other subjects. Both surveys underwent testing and were shown to be valid and reliable. Since no usable surveys were found that dealt with students’ attitudes towards learning a second or foreign language

online and the consideration of whether or not students rated themselves as strong in interpersonal or in intrapersonal intelligences, the author combined a survey of student preparedness for online learning with a survey of student learning styles (Dray et al., 2011; McClellan & Conti, 2007). The multiple intelligences section asked students to rate themselves from one to nine in order to identify their strong personal areas of intelligence, and the OLRS section used a four-point Likert-type scale to measure learner readiness for learning a language online.

Dray et al. (2011) combined three previously published surveys to test and validate their own survey. In order to prove its usefulness, they performed a “reliability analysis, confirmatory factor analysis, and convergent validity” (p. 39). The authors used a comparative fit index (CFI), that yielded .563 for a one-factor model, .792 for a two-factor model, and .845 for a five-factor model (p. 40). The root mean square error of approximation (RMSEA) scores were .089 for the one-factor model, .062 for the two-factor model, and .053 for the five-factor model (p. 40). They concluded that the five-factor model yielded the most significant results. A Cronbach’s alpha revealed an “overall internal consistency” of .778 (p. 40), and reported “The internal consistency of these surveys is survey 2 = .662 and survey 3 = .802” (p. 41).

McClellan and Conti (2007) devised a 90-item Likert-type multiple intelligences survey which they compiled from previous multiple intelligences surveys. They pilot tested their survey with a group of eight students to identify the “language, readability, and format of the preference indicator” (p. 21). Through testing the content validity, the authors discovered that this Likert-type survey did not yield the results they had hoped for, since the students tended to rate every item positively. The survey was changed to a nine-item ranking survey where the students had to use all the numbers. By doing this, their multiple intelligence rating could be properly

computed. It was tested again with 11 students and then pared down to 45 items and retested on 149 students. The “correlation scores for all of the items except two were at .3 or above; 57.7% of the items were at .5 or above, and 26.7% of the items were at .6 or above” (p. 220). The authors chose three items with the highest factor loading scores from each multiple intelligence to end up with a 27-item survey. In order to test the reliability of the instrument, they used a test-retest method. Four of the nine items rated over .7 with the others slightly lower. Visual intelligence had the lowest score at .5. For the purposes of this study the interpersonal intelligence correlation was .72, which is acceptable, but the intrapersonal was .66, which is slightly below the .7 level which proves reliability. Because the aim of the study was merely to identify the intelligences of the students, the researcher felt that the survey should prove acceptable for this purpose. All three parts of the survey were distributed to several graduate students, professors, and foreign language teachers for their comments and changes were made accordingly. The participants from online, hybrid, and traditional classes received the surveys electronically. Three questions that the researcher had created were removed from the second survey. In their place were added three questions specifying whether or not the students were enrolled in a fully online, hybrid, or traditional language class in order to correct two of the previous questions. Two questions were also inserted to discover how many hybrid and online language courses each student had taken and whether or not they had already taken the survey.

## **Sampling Procedures**

This study implemented a convenience sample of first- and second-year foreign or second language students who were either taking classes online or who were enrolled in a traditional classroom. Since random sampling was not involved, the researcher sought to attain a sampling of at least 50 students for every subgroup (Gall, Gall, & Borg, 2007), or even more than 50 to increase the power as much as possible (Borg & Gall, 1983).

## **Procedures**

To test the combined survey for clarity, grammar, and ease of use, the researcher conducted a pilot study with 15 graduate students, language instructors, and other professors. She also gave it to 22 beginning Spanish students for their comments. Both groups received their surveys online and were asked to read the survey and add their comments. Filling out the survey itself was optional. Of the 22 adult Spanish students who were given the surveys, nine responded completely and one partially. Three of the surveys never reached their destination, probably due to an incorrect email address. Of the 15 sent out to professors, language instructors, and graduate students, 11 responded. Input from both groups was important because each group was able to examine the survey from a different perspective. Based on the input from the beginning adult Spanish learner group and the professor/graduate student group, the researcher made a few minor changes after receiving permission from the authors of the two surveys.

After receiving IRB approval, the researcher contacted the community colleges and universities to obtain permission for the study. She then sent a link with a letter of introduction to all participants to inform them of the study. The survey was sent electronically to the hybrid, online, and traditional foreign or second language students in their first two years of college-level language study. As the surveys were received, the researcher compiled a master code sheet

of those who had completed it (Gall, Gall, & Borg, 2007, p. 232). The letter of introduction was sent out with the first survey near the end of the term in order to allow students to experience their language classes before responding. Some of the surveys were sent out two or three times to those students who had not yet completed it during a period of four weeks. The second or third time was a gentle reminder for those who had either overlooked or forgotten to complete it. The second survey was sent out once at the beginning of the fall semester with no additional reminders. The first survey included a small random award to one student from each participating institution; the second survey did not.

### **Data Analysis**

The researcher grouped the surveys according to the independent variables of hybrid, online classes, and traditional classes. A descriptive analysis of the data followed to identify the means, standard deviations, and other descriptive statistics of the Likert-type survey responses measuring the dependent variables of student readiness and satisfaction. A descriptive analysis of the ranked responses identified those students who rated themselves as high in interpersonal or in intrapersonal intelligence, followed by a descriptive analysis of data from the second survey. The researcher performed a *t*-test for independent means that included a Levene's test to measure the homogeneity of independent variances (Pallant, 2013), a multiple regression, and a Kruskal-Wallis test. The level of significance used for testing was .05. A description of the results of the study will be covered in the next chapter.



## **CHAPTER FOUR: RESULTS**

The purpose of this quantitative study was to discover whether or not students who rated themselves as intrapersonal or interpersonal learners would rate themselves differently in their levels of readiness for online language courses. The study used a causal-comparative and correlational design to investigate student readiness and satisfaction toward learning language online and examine some of the differences between distance and classroom language learners. One important factor that the survey identified was whether or not the students considered themselves to be strong in interpersonal or in intrapersonal intelligence. The participants were first- and second-year foreign or second language college students, who either took their classes fully online, mostly online (hybrid), or face-to-face. The study used surveys to identify their multiple intelligence area, discover students' attitudes towards their classes, and measure their online readiness for language learning. The study was non-experimental, so random sampling or assignment was not necessary. The independent variables were modes of language learning, which were separated into traditional, hybrid, and online language classes. The dependent variables were divided into two subgroups. The first subgroup, online learning, had two variables, student satisfaction with online language learning and student readiness for online language learning. The second subgroup, learner characteristics, also had two variables, interpersonal intelligence and intrapersonal intelligence (Dray et al., 2011; McClellan & Conti, 2008). Community colleges and universities which offered both traditional and online language classes were included. Three research questions and null hypotheses were proposed for examination.

### **Research Questions and Hypotheses**

The following research questions were proposed for examination:

**Research Question 1:** Is there a statistically significant difference between students who attended an online/hybrid foreign language class and those who attended a traditional foreign language class on their level of online readiness?

This question was answered by the results from the OLRs section of the Multiple Intelligences and Online Learning Readiness Survey

**Research Question 2:** Are the participants' levels of interpersonal and intrapersonal intelligences significant predictors of online readiness?

This question was also answered by the results from the MI and OLRs sections of the Multiple Intelligences and Online Learning Readiness Survey.

**Research Question 3:** Are there statistically significant differences between those participants who prefer hybrid, online and those who prefer traditional foreign language classes on their level of interpersonal and intrapersonal intelligence?

This question was answered by the results from the MI and OLRs sections of the Multiple Intelligences and Online Learning Readiness Survey.

The null hypotheses are as follows:

**H01:** There will not be a statistically significant difference between students who attended an online/hybrid foreign language class and those who attended a traditional foreign language class on their level of online readiness.

**H02:** The participants' levels of interpersonal and intrapersonal intelligences will not be significant predictors of online readiness.

**H03:** There will not be statistically significant differences between participants who prefer hybrid, online and those who prefer traditional foreign language classes on their level of interpersonal and intrapersonal intelligence.

## **Participants**

The participants were enrolled in several postsecondary institutions in Virginia and North Carolina which offered foreign or second language online, hybrid, and face-to-face classes. The researcher hoped to identify a volunteer sampling (Gall, Gall, & Borg, 2010) of at least 400 foreign language postsecondary students. The first survey was distributed to 3,977 foreign and second language students from ten community colleges and universities towards the end of the 2013 Spring semester. Three hundred and six students responded to the survey. Of that number, 44 were removed from consideration due to factors such as being underage or having insufficient of a response. When the researcher realized she had not included a question about whether or not the students were enrolled in a traditional language class, and that there was no way to distinguish the traditional and online language students, she chose to omit the results from the study. A second survey was then sent to 2,177 foreign and second language students from 10 higher education institutions a month into the 2013 Fall semester. This time 185 students responded to the survey and 106 responses were utilized.

The study used surveys to identify differences in students' readiness and satisfaction with their online and face-to-face language classes, and to identify whether or not the students were interpersonal or intrapersonal learners. It combined a multiple intelligences survey with an OLRs (Dray et al., 2011; McClellan & Conti, 2008). Six additional questions created by the researcher were added pertaining to learning a second or foreign language. Three of these questions were removed from the second survey. In their place were added three questions specifying whether or not the students were enrolled in a fully online, hybrid, or traditional language class to correct two of the previous questions. In addition, after receiving permission from the authors, wording was added to the survey to refer the respondents to language learning

rather than other subjects before the first and second survey distribution. Both surveys underwent testing and were shown to be valid and reliable.

The study implemented a convenience sample of first- and second-year foreign or second language students who were either taking classes online or who were enrolled in a traditional classroom. Since random sampling was not involved, the researcher sought to attain a sampling of at least 50 students for every subgroup (Gall, Gall, & Borg, 2007) or even more than 50 in order to increase the power as much as possible (Borg & Gall, 1983).

The researcher grouped the surveys according to the independent variables of hybrid, online classes, and traditional classes. Because some students reported that they were attending an online or hybrid language class and a traditional language class, the online and hybrid classes were combined into one variable. The responses for the interpersonal and intrapersonal intelligences were calculated separately in order to perform the statistical tests. The level of significance used for testing was .05.

The researcher learned a great deal about the complexities of research methodology and the limitations which result from data collection and survey wording. The first survey distribution was flawed in which it failed to distinguish between the online and traditional classes due to faulty wording of one of the survey questions. One question asked the students if they were enrolled in an online class, but failed to ask if it were a language class. Also, there was no survey question asking whether or not students were enrolled in a traditional language class. Although this extended the time to conduct the study, the researcher edited the survey and moved forward after making the appropriate adjustments.

## Descriptive Statistics

The second survey was distributed to 2,177 foreign and second language students from 10 higher education institutions a month into the 2013 Fall semester. This time 185 students responded to the survey and 106 responses were utilized.

### Participant Demographics

The descriptive statistics for the participants' demographics are listed in Table 1. Seventy-two (68.8%) of the respondents were female. The respondents were relatively young. The participants' age ranges varied, with 66 (68.0%) falling into the 18-29 years age range, 24 (24.8%) within the 30-49 years age range, and 7 (7.2%) within the 50 or older age range. A large majority, 76.3% of the participants, were White. The second largest race group was African American at 11.3%. Sixty-one (69.2%) of the participants were employed, and 27 (30.8%) were unemployed. Among the employed participants, 16 (26.2%) reported working more than 40 hours per week.

Table 1

#### *Descriptive Statistics for Participant Demographics*

Variable	<i>n</i>	%
Age		
18 – 20	40	41.2
30 – 39	12	12.4
40 – 49	12	12.4
50 – 59	3	3.1
60 or older	4	4.1
Ethnicity		

African American	11	11.3
American Indian/Alaska Native	2	2.1
Hispanic	4	4.1
Multi-Racial	6	6.2
White	74	76.3
<hr/>		
Gender		
Female	72	68.6
Male	33	31.4
<hr/>		
Employment Status		
Employed, working fewer than 40 hours/week	45	51.1
Employed, working more than 40/hours week	16	18.2
Unemployed, looking for work	11	12.5
Unemployed, not looking for work	13	14.8
Retired	1	1.1
Disabled, unable to work	2	2.3

### **Participants' Experience with Foreign Language Classes**

The participants were also asked about their experience with foreign or second language classes. The descriptive statistics for these responses are listed in Table 2. Approximately half (53, 50.5%) of the respondents had less than 1 year of experience studying a foreign/second language, 34 (32.31%) had 1 to 4 years experience, and 18 (17.1%) had more than 4 years of experience studying a foreign/second language. All the students were currently taking at least

one foreign/second language class. Forty-seven (44.8%) were currently taking the class online, 34 (32.7%) were taking a hybrid class, and 59 (56.2%) were taking a traditional class.

Table 2

*Descriptive Statistics for Experience with Foreign or Second Language Classes*

Variable	%	<i>n</i>
Experience Studying Foreign/Second Language	50.5	53
Less than 1 year	32.3	34
1 – 4 years	32.3	34
More than 4 years	17.1	18
Current Foreign/Second Language Online Class		
Yes	44.8	47
No	55.2	58
Current Foreign/Second Language Hybrid Class		
Yes	32.7	34
No	67.3	70
Current Foreign/Second Language Traditional Class		
Yes	56.2	59
No	43.8	46

## Hypothesis Testing

This section of the chapter describes the inferential statistics utilized to address the study's research questions and hypotheses. All inferential tests were conducted at  $\alpha = .05$ .

**Research Question 1:** Is there a statistically significant difference between students who attended an online/hybrid foreign language class and those who attended a traditional foreign language class on their level of online readiness?

**H01:** There will not be a statistically significant difference between students who attended an online/hybrid foreign language class and those who attended a traditional foreign language class on their level of online readiness.

An independent samples *t*-test (Howell, 2010) was conducted to determine if there was a statistically significant difference between students who attended an online/hybrid foreign language class and those who attended a traditional foreign language class on their level of online readiness. Class type (online/hybrid vs. traditional) was the between-subjects independent variable, and student's level of online readiness was the dependent variable.

The next step involved assessing the normality and homogeneity of variances assumption. Histograms were created for each group to assess the normality assumption. The distributions of online readiness for the online/hybrid group and the traditional group are presented in Figures 1 and 2, respectively. The histogram for the online/hybrid group revealed a positive skew. This indicates that the extreme scores (i.e., unusual scores) were on the high end of the online readiness scale. The histogram for the traditional group was approximately normal, but the small sample size precluded a conclusive test of normality. Levene's test was not significant, indicating the groups had equal error variances,  $F = 0.01$ ,  $p = .915$ .



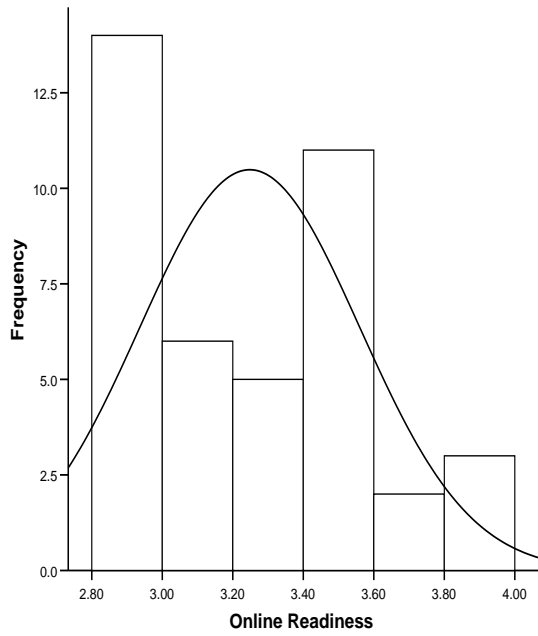


Figure 1

*Distribution of online Readiness for Online/Hybrid Group*

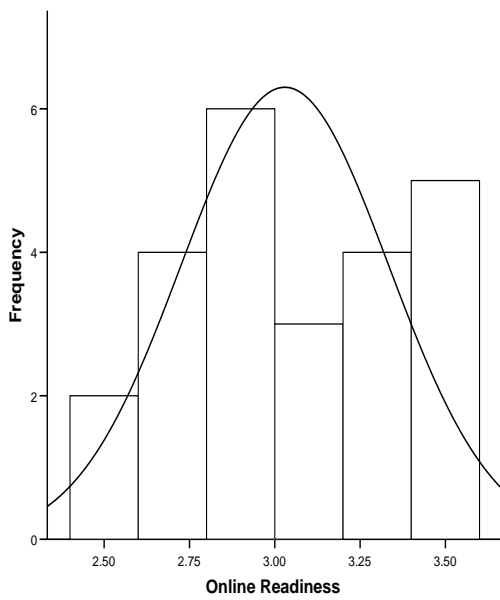


Figure 2

*Distribution of Online Readiness for Traditional Group*

The means and *t*-test coefficients are listed in Tables 3 and 4, respectively. The *t*-test revealed a significant difference between those who attended online/hybrid classes and those who attended traditional classes on online readiness,  $t(63) = 2.76, p = .008, d = .78$ . Those who attended a online/hybrid class ( $M = 3.25, SD = 0.31$ ) had significantly higher online readiness scores than those who attended a traditional class ( $M = 3.03, SD = 0.30$ ). A Mann-Whitney test was also conducted because of the failed normality assumption. The Mann-Whitney is the non-parametric (i.e., distribution free) version of the *t*-test. The Mann-Whitney test confirmed the results for the *t*-test and revealed the online/hybrid group scored significantly higher than the traditional group on online readiness,  $U = 303.50, z = -2.57, p = .010$ . Thus, the researcher rejects the first null hypothesis.

Table 3

*Mean and Standard Deviations for Research Question 1*

Class Group	<i>n</i>	<i>M</i>	<i>SD</i>
Online/Hybrid	41	3.25	0.31
Traditional	24	3.03	0.30

Table 4

*Test Statistics for Research Question 1*

<i>t</i>	<i>df</i>	Sig.	Mean Difference	SE Difference	95% CI of the Difference	
					Lower Bound	Upper Bound
2.76	63	.008	0.22	0.08	0.06	0.38

**Research Question 2:** Are the participants' levels of interpersonal and intrapersonal intelligences significant predictors of online readiness?

**H02:** The participants' levels of interpersonal and intrapersonal intelligences will not be significant predictors of online readiness.

A multiple regression was conducted to determine if the participants' levels of interpersonal and intrapersonal intelligences were significant predictors of online readiness. The participants' levels of interpersonal and intrapersonal intelligences were the predictors, and online readiness was the criterion. The data were screened for outliers prior to assessing the statistical assumptions. The participants' residuals were standardized, and the resulting scores were utilized to identify outliers in the data. A participant was considered an outlier if  $|\text{standardized residual}|$  was greater than three. This process did not reveal any outliers in the data. The variance inflation factor was used to assess the potential of model multicollinearity. The variance inflation factor was 1.00, which indicates that the covariance (i.e., relationship) among the predictors did not have an undue impact on the model's standard error. A plot of standardized residuals (Figure 3) indicated model linearity and model homoscedasticity. Linearity indicates that a straight line was the best fit for the data. Homoscedasticity indicates the size of the errors (i.e., residuals) were consistent across levels of the criterion.

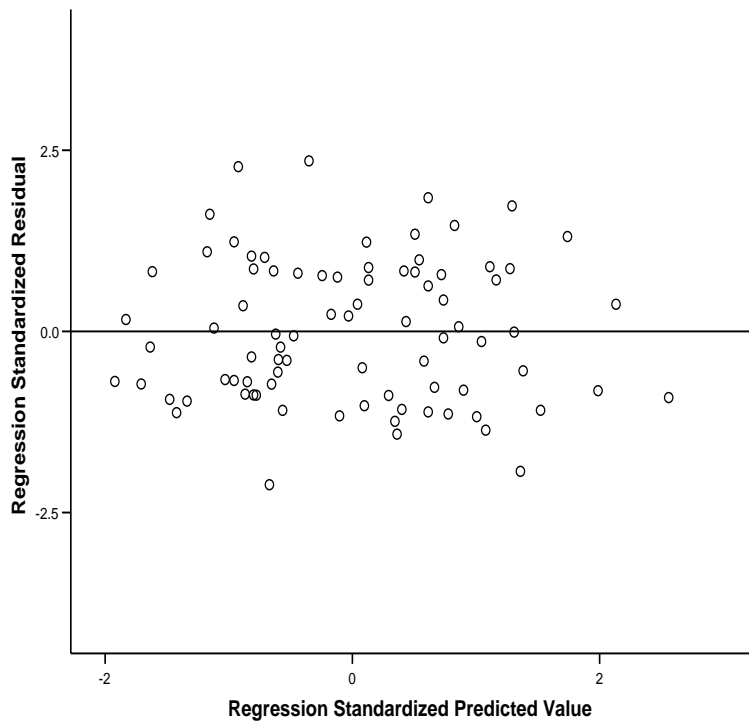


Figure 3

*Residual Plot for Online Readiness*

The omnibus model was not a significant predictor of online readiness,  $F(2, 80) = 1.13$ ,  $p = .327$ ,  $R^2 = .03$ . This indicates that together the predictors did not account for a significant amount of variation in the criterion. Only 3% of the variability in online readiness was attributed to the participants' levels of interpersonal and intrapersonal intelligence. The regression coefficients are listed in Table 5. The coefficients failed to reveal any significant predictors within this model. The coefficients indicated that interpersonal and intrapersonal intelligence were not significant predictors of online readiness,  $B = 0.15$ ,  $p = .166$  and  $\beta = -0.06$ ,  $p = .611$ , respectively. Thus, the researcher fails to reject the second null hypothesis.

Table 5

*Regression Coefficients for Online Readiness*

Predictor	<i>B</i>	<i>SE</i>	$\beta$	<i>t</i>	Sig.
Interpersonal Intelligence	0.01	0.01	0.15	1.40	.166
Intrapersonal Intelligence	-0.01	0.01	-0.06	-0.51	.611

**Research Question 3:** Are there statistically significant differences between those who prefer hybrid, online or traditional foreign language classes on their level of interpersonal and intrapersonal intelligence?

**H03:** There will not be statistically significant differences between those who prefer hybrid, online and those who prefer traditional foreign language classes on their level of interpersonal and intrapersonal intelligence.

Two Kruskal-Wallis tests (Howell, 2010) were conducted to address research question 3. A separate test was completed for each dependent variable. The Kruskal-Wallis test is the non-parametric equivalent of the one-way ANOVA). It was utilized in this case because of the relatively small samples sizes in each group.

The descriptive statistics and Kruskal-Wallis test statistics are listed in Tables 6 and 7, respectively. The first test failed to reveal a significant difference between the preference groups on interpersonal intelligence,  $\chi^2(2) = 1.44, p = .486$ . The second test also failed to reveal a significant difference between the preference groups on intrapersonal intelligence,  $\chi^2(2) = 1.89, p = .389$ . Thus, the researcher fails to reject the null hypothesis.

Table 6

*Mean Rank of Interpersonal & Intrapersonal Intelligence by Class Preference*

Dependent Variable	Group	<i>n</i>	<i>Mean Rank</i>
Interpersonal Intelligence	Hybrid	16	34.13
	Online	19	42.34
	Traditional	39	36.53
Intrapersonal Intelligence	Hybrid	16	31.72
	Online	19	41.63
	Traditional	39	37.86

Table 7

*Test Statistics for Research Question 3*

Dependent Variable	<i>df</i>	<i>Chi-Square</i>	<i>Sig.</i>
Interpersonal Intelligence	2	1.44	.486
Intrapersonal Intelligence	2	1.89	.389

**Summary**

The first null hypothesis claims that there would not be a statistically significant difference between students who attended an online/hybrid foreign language class and those who attended a traditional foreign language class on their level of online readiness. An independent samples *t*-test (Howell, 2010) revealed a statistically significant difference between students who attended an online/hybrid foreign language class and those who attended a traditional foreign language class on their level of online readiness. Class type (online/hybrid vs. traditional) was

the between-subjects independent variable, and students' level of online readiness was the dependent variable. The *t*-test revealed a significant difference between those who attended online/hybrid classes and those who attended traditional classes on online readiness,  $t(63) = 2.76, p = .008, d = .78$ . Those who attended a online/hybrid class ( $M = 3.25, SD = 0.31$ ) had significantly higher online readiness scores than those who attended a traditional class ( $M = 3.03, SD = 0.30$ ). A Mann-Whitney test confirmed the results for the *t*-test and revealed the online/hybrid group scored significantly higher than the traditional group on online readiness,  $U = 303.50, z = -2.57, p = .010$ . Thus, the researcher rejects the first null hypothesis.

The second null hypothesis posits that the participants' levels of interpersonal and intrapersonal intelligences will not be significant predictors of online readiness. A multiple regression was conducted to determine if the participants' levels of interpersonal and intrapersonal intelligences were significant predictors of online readiness. The participants' levels of interpersonal and intrapersonal intelligences were the predictors, and online readiness was the criterion. The variance inflation factor was 1.00, which indicates that the covariance (i.e., relationship) among the predictors did not have an undue impact on the model's standard error. A plot of standardized residuals (Figure 3) indicated model linearity and model homoscedasticity. Linearity indicates that a straight line was the best fit for the data. Homoscedasticity indicates the size of the errors (i.e., residuals) were consistent across levels of the criterion. The omnibus model was not a significant predictor of online readiness,  $F(2, 80) = 1.13, p = .327, R^2 = .03$ , that indicates that together the predictors did not account for a significant amount of variation in the criterion. Only 3% of the variability in online readiness was attributed to the participants' levels of interpersonal and intrapersonal intelligence. The regression coefficients are listed in Table 5. The coefficients failed to reveal any significant

predictors within this model. The coefficients indicated that interpersonal and intrapersonal intelligence were not significant predictors of online readiness,  $B = 0.15$ ,  $p = .166$  and  $\beta = -0.06$ ,  $p = .611$ , respectively. Thus, the researcher fails to reject the second null hypothesis.

The third null hypothesis states that there will not be statistically significant differences between those who prefer hybrid, online or traditional foreign language classes on their level of interpersonal and intrapersonal intelligence. Two Kruskal-Wallis tests (Howell, 2010) were conducted to address the third research question. A separate test was completed for each dependent variable. Both tests failed to reveal a significant difference between the preference groups on interpersonal intelligence. Therefore, the researcher fails to reject the third null hypothesis. A discussion of the research results follows.



## CHAPTER FIVE: DISCUSSION

The purpose of this quantitative study was to discover students' attitudes toward learning a language online, to identify differences in students' readiness and satisfaction with online and face-to-face language classes, and to identify whether or not the students were interpersonal or intrapersonal learners. Since the time of Babel (Genesis 11: 7-9, English Standard Version) people have had to learn other languages to understand and be understood by others. Language study has been crucial since that time in order to facilitate communication across the ethnicities throughout the world, so it is important to understand how students perceive learning a language to be able to assist them in overcoming any obstacles they may have which prevent them from studying language online. Other factors considered were whether or not the students considered themselves as strong in interpersonal or in intrapersonal intelligence, whether or not they were enrolled in an online, hybrid, or traditional language class, their online readiness, and their preferred setting for language study.

The setting was 10 postsecondary educational institutions in Virginia and North Carolina during the Fall semester of 2013. Adult students in their first and second year of foreign and second language classes participated. Students under the age of 18 were removed from consideration. The second survey was sent to 2,177 foreign and second language students from 10 higher education institutions a month into the 2013 Fall semester. One hundred and eighty-five students responded to the survey. The researcher found 106 utilizable responses after the underage, insufficient, and repeat responses were removed.

Surveys were used as the instrument for data collection. A cover letter and general demographics questions such as age and length of time studying the language was included with the questionnaire. The questionnaire combined a multiple intelligences survey with an Online

Learning Readiness Survey (Dray et al. 2011; McClellan & Conti, 2008). Six additional questions, created by the researcher, were added pertaining to learning a second or foreign language. Three of these questions were removed from the second survey to make the second distribution more concise. In their place, the researcher added three questions specifying whether or not the students were enrolled in a fully online, hybrid, or traditional language class in order to correct two of the previous questions. The multiple intelligence section asked students to rate themselves from one to nine in order to identify their strong personal areas of intelligence, and the OLRS section used a four-point Likert-type scale to measure learner readiness for learning language online. All three parts of the survey were distributed to several graduate students, professors, and foreign language teachers for their comments before distribution to the participants. The participants from online, hybrid, and traditional classes received their surveys electronically. This study implemented a convenience sample of first- and second-year foreign or second language students who were either taking classes online in some form or who were enrolled in a traditional classroom. Since random sampling was not involved, the researcher sought to attain a sampling of at least 50 students for every subgroup (Gall, Gall, & Borg, 2007) or even more than 50 in order to increase the power as much as possible (Borg & Gall, 1983).

### **Summary of the Findings**

The purpose of this quantitative study was to discover whether or not students who perceived themselves as ready for online language courses would rate themselves as having a stronger intrapersonal intelligence than students who perceived themselves as less ready for online language courses. The researcher also hoped to discover a difference in students' perceptions of online learning, depending on whether or not they were enrolled in an online, hybrid, or traditional language class, and whether or not they rated themselves as being strong in

intrapersonal or interpersonal intelligence. The first survey distribution was flawed since it failed to distinguish between the online and traditional classes due to faulty wording of one of the survey questions, so it was not included in the study.

The first null hypothesis claims that there would not be a statistically significant difference between students who attended an online/hybrid foreign language class and those who attended a traditional foreign language class on their level of online readiness. Class type (online/hybrid vs. traditional) was the between-subjects independent variable, and students' level of online readiness was the dependent variable. The *t*-test revealed a significant difference between those who attended online/hybrid classes and those who attended traditional classes on online readiness,  $t(63) = 2.76, p = .008, d = .78$ . Students who attended an online/hybrid class ( $M = 3.25, SD = 0.31$ ) had significantly higher online readiness scores than those who attended a traditional class ( $M = 3.03, SD = 0.30$ ). Thus, the researcher rejects the first null hypothesis.

The second null hypothesis posits that the participants' levels of interpersonal and intrapersonal intelligences will not be significant predictors of online readiness. A multiple regression was conducted to determine if the participants' levels of interpersonal and intrapersonal intelligences were significant predictors of online readiness. The participants' levels of interpersonal and intrapersonal intelligences were the predictors, and online readiness was the criterion. The variance inflation factor was 1.00, which indicates that the covariance (i.e., relationship) among the predictors did not have an undue impact on the model's standard error. A plot of standardized residuals (Figure 3) indicated model linearity and model homoscedasticity. Linearity indicates that a straight line was the best fit for the data. Homoscedasticity indicates the size of the errors (i.e., residuals) were consistent across levels of the criterion. The omnibus model was not a significant predictor of online readiness,  $F(2, 80) =$

1.13,  $p = .327$ ,  $R^2 = .03$ , which indicates that together the predictors did not account for a significant amount of variation in the criterion. Only 3% of the variability in online readiness was attributed to the participants' levels of interpersonal and intrapersonal intelligence. The coefficients indicated that interpersonal and intrapersonal intelligence were not significant predictors of online readiness,  $B = 0.15$ ,  $p = .166$  and  $\beta = -0.06$ ,  $p = .611$ , respectively. Thus, the researcher fails to reject the second null hypothesis.

The third null hypothesis states that there will not be statistically significant differences between those who prefer hybrid, online or traditional foreign language classes on their level of interpersonal and intrapersonal intelligence. Two Kruskal-Wallis tests (Howell, 2010) were conducted to address the third research question. A separate test was completed for each dependent variable. Both tests failed to reveal a significant difference between the preference groups on interpersonal intelligence. Therefore, the researcher fails to reject the third null hypothesis. A discussion of the research results follows.

### **Discussion of the Findings**

The researcher had hoped to find significant differences in levels of online readiness between students attending online language classes and traditional classes. According to the  $t$ -test results, students who attended an online/hybrid class ( $M = 3.25$ ,  $SD = 0.31$ ;  $t(63) = 2.76$ ,  $p = .008$ ,  $d = .78$ ) had significantly higher online readiness scores than those who attended a traditional language class ( $M = 3.03$ ,  $SD = 0.30$ ). This contrasts with Pichette (2009), who found no significant differences in levels of anxiety for students who were attending either online or traditional language classes in his survey study.

The researcher discovered that there were no significant differences between students who considered themselves the strongest in interpersonal intelligence and those who scored the strongest in intrapersonal intelligence and their preference for online or traditional language classes. Students who rated themselves as high in intrapersonal intelligence did not show a significant preference for online language classes, nor did students high in interpersonal intelligence show a preference for traditional language classes. The results contrast with Loffredo (2010), who focused on personality types to investigate why certain students prefer online instruction and others prefer traditional classroom instruction. Using a chi-square test for independence, he found that shy students preferred online language instruction and extroverts preferred face-to-face language instruction. Shy students could be considered intrapersonal learners as they focus more on self, and interpersonal learners could be considered extroverts, as they prefer to work with other people. Also, Glover and Lewis (2012), in their quest to discover whether or not college students preferred online or face-to-face classes, surveyed 152 university students and divided the responses into three categories containing those who preferred online, hybrid, or traditional courses. A one-way analysis of variance revealed significant results “ $F(2, 149) = 36.894, p = .000, \eta^2 = .33$ ” (p. 11). The researchers followed up with a Tukey HSD. The Tukey test indicated that “participants who preferred taking online courses took significantly more online courses ( $m = 6.85$ ) than participants who preferred either face-to-face ( $m = 2.098$ ) or blended ( $m = 3.33$ ) courses” (p. 11, 12). The results of the current study did not confirm Glover and Lewis’ results as the researcher had hoped.

### **Limitations to the Study**

One limitation to the study was the “selection-treatment interaction” (Gay & Airasian, 2003, p. 364). The participants were not selected randomly but were chosen if they were

attending a first- or second-year foreign or second language class. Due to the small number of respondents, it would have been impossible to randomly select the participants, so a convenience sample was used. Although the researcher wrote to close to 100 institutions of higher education to invite them to participate in the study, only 12 met the specifications for the study and consented to take part. This also contributed to another limitation, the small sample size. The researcher had hoped to find 50 participants for each subgroup, but there were insufficient responses to the survey to meet that number.

In addition, several universities offered no online or hybrid language courses, and usually the ones which did offer online courses, only included the higher levels of foreign language. For this reason, the researcher broadened her scope to include institutions of higher education in North Carolina.

Another limitation to the study was the errors in the wording of the survey. The first survey did not specify whether or not the students were attending an online or a traditional language class. The question asking if the students were attending an online class omitted the word “language.” None of the survey questions inquired whether or not the students were attending a traditional language class. The first survey results were not included for this reason.

The second survey distribution revealed a similar discrepancy. This time it was the students who responded in a way which did not make sense. Several students responded that they were attending both a hybrid and an online language class. Other students claimed to be attending all three. For this reason, the variables for online and hybrid attendance were combined, and the participants who claimed to attend an online or hybrid and a traditional language class or all three were removed from consideration.

The demographics results revealed a large gender gap. Females outnumbered males in the study by about three to one. In addition, Whites far outnumbered every other race. Because of the number of limitations of the study, the researcher is hesitant to claim that there were any significant results to the study.

### **Implications**

There were several limitations to the study which affect the results. The number of survey responses was very small, and there was no random sampling. Out of the three research questions examined, only one indicated significant results, yet no conclusions can be reached. The study indicated that students who were already attending an online or hybrid class showed a higher degree of online readiness than students who were attending a traditional language class. Pichette (2009), on the other hand, found no significant differences in levels of anxiety for students who were attending either online or traditional language classes in his survey study. Kellog, Oliver, and Patel (2012), in their combined quantitative/qualitative study, discovered that students rated themselves as less successful at foreign language than any other subject at their virtual school. Even their teachers rated them as achieving more than they themselves believed. The researchers also discovered that students who had already taken a foreign language class online had a much better perception of online language learning than those who had never studied a language online. A student's attitude is a crucial factor to succeeding at learning a language in an online or hybrid environment. For this reason, there is a need for continuing research in the area of online language learning.

### **Recommendations for Future Research**

There are several recommendations for future research which could benefit students considering taking language classes online. As distance learning continues to expand, more

investigation is needed in order to discover how online learning affects students, especially those who are learning a second or foreign language. Although technology integration has become an essential tool for the classroom, research has shown that some students are still hesitant to utilize technology when learning a language, especially when it comes to taking classes online (Kim, 2009; Sayadian & Lashkarian, 2010). Language students may appreciate online learning for its convenience, but may also experience difficulties even finding language classes online. The researcher was surprised to discover institutions of higher education which offered no hybrid or online language classes. More research is needed on the effectiveness of learning a language online so that more universities will be inclined to include hybrid and online language classes. Although much research has been conducted on online learning in general, and the researcher found an abundance of foreign and second language studies, not many dealt with comparing student attitude or readiness for learning a language online.

Although the multiple intelligence areas of intrapersonal and interpersonal intelligences were not found to have a significant effect on online readiness, perhaps a study concentrating on one of the other intelligences would produce different results. Gardner (1993) considers linguistic intelligence to be the one intelligence “most widely and most democratically shared across the human species” (p. 78), so this intelligence might play a crucial role in finding student readiness for learning a language online. Gardner (1993) also spoke of how music and learning language have commonalities, so an interesting study could involve the musical intelligence and its affect on online language readiness. The logical-mathematical intelligence might also affect a student’s online readiness for language learning, so it should also be considered. Much more research needs to be conducted on learning language online and the effect of the differing multiple intelligences. Understanding students’ strengths in the differing intelligence areas could



answer the question of why certain students tend to prefer online courses and others shy away from them.

What are some other factors which could affect online readiness for language learning? Age could be a crucial factor to consider. Older students who haven't been exposed to as much technology may have difficulties grasping all the necessary skills needed to complete a foreign or second language course online. Gender may also play a role in online readiness. The researcher found in the literature review that males and females differed in their computer skills, so that must be taken into account. How long students have studied a language could affect their willingness or readiness for online language classes. Whether or not a student has already studied/ learned/speaks more than one language is also a variable. Years of language study should be included in future research. Level of employment must also be taken into account when researching why some students show more willingness to try distance education than others. Students who are employed often find it easier to take courses online with their busy schedules. Would employed students, whether or not part-time or fully employed, exemplify more online readiness for language courses than unemployed students?

Another gap in language study is the number of available quantitative studies. The researcher found an inordinate number of qualitative language studies as compared to quantitative studies. More quantitative language studies which examine students' attitude towards online classes are greatly lacking. Research has shown that when students take online classes, they become more willing to take other online classes (Glover & Lewis, 2012). More online foreign and second language classes need to be offered at all levels, so that students can experience online learning and overcome any fears they may have concerning hybrid or online language classes.

## **Conclusion**

Several questions remain unanswered and should be considered for future study. What enables some students to exhibit a greater readiness for learning a language online than others? This study has raised more questions for future reference than it was able to answer. It is this researcher's hope that the investigation will continue to search for what factors impact online readiness and students' preference for either traditional or some other form of online language class. The venues of distance education continue to expand, so the understanding of students' attitudes must also increase accordingly.

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## **APPENDIX A: LETTER OF INTRODUCTION**

Dear fellow student,

I'm a doctoral student from Liberty University. I am conducting a study on student satisfaction with hybrid, completely online, or classroom language learning. Hybrid classes involve spending time both online and in the classroom. I'm hoping as a result of this research and other research on distance language learning to see more online classes offered as more research is conducted on students' attitudes towards learning a language online. Learning a language is a difficult task, so instructors need to know what would enable students to learn a language online. That's why I'm writing to see if you'd be interested in participating. It's a survey which should take from 15 to 30 minutes to complete. The survey asks questions about how you feel about learning a language online and pinpoints your strengths in 9 areas of intelligence. If you're interested in discovering your strongest area of multiple intelligence, you can fill in the form at the end and jot down your results. The survey is anonymous. Thank you for your time.

Thanks again,

Noreen La Piana

## **APPENDIX B: COVER LETTER**

Dear \_\_\_\_\_,

I hope you've decided to take part in the survey. My study is on online language learning and I'm hoping to discover students' attitudes towards online learning with no time in a classroom, hybrid learning with time spent in the classroom and online, as compared to learning in a traditional classroom. I ask that you please complete and return the survey within two weeks. The survey is attached below and will begin and end with eight demographic questions. Your answers will be kept confidential so feel free to answer honestly. An informed consent is also included in this correspondence. I appreciate your help.

## **APPENDIX C: INFORMED CONSENT**

### **CONSENT FORM**

Comparing Students' Perceptions of Online Learning to Traditional Learning

Noreen Marie La Piana

Liberty University

You are invited to be in a research study comparing traditional language classes to online language classes. You were selected as a possible participant because you are studying a foreign or second language in a traditional classroom, in a hybrid class, or completely online. I ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Noreen La Piana, doctoral candidate at Liberty University.

The purpose of this study is to discover if learners consider themselves independent learners who need little assistance from other students or professors or group learners who work better in a classroom.

If you agree to be in this study, we would ask you to do the following:

1. Fill out the online survey. It should take from 15 to 30 minutes to complete. An optional form will be provided at the end of the survey for you to discover your strongest area of multiple intelligence, if you so desire.

Risks and Benefits of being in the Study:

The study involves very minimal risks as the surveys will be handled online and kept anonymous at all times.

The benefits to participation are: the participants will learn their strong areas of intelligence, according to Gardner's nine intelligences. Another benefit is to future language students because it is my hope that more online classes will be offered as research discovers problems involved with distance learning and how to overcome them.

Compensation:

None

Confidentiality:

The records of this study will be kept private. In any sort of report we might publish, we will not include any information which will make it possible to identify a subject. Research records will be stored securely and only researchers will have access to the records. As I mentioned before, the survey will be conducted online and will be numbered rather than identified by name.

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with your institution or with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions:

The researcher conducting this study is: Noreen La Piana.

**Statement of Consent:**

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

## APPENDIX D: MULTIPLE INTELLIGENCE SURVEY

### Multiple Intelligence Survey

Directions: People differ in their ways of learning and knowing. These are called Multiple Intelligences. Below is a list of 27 items in 3 sets which relate to each type of Multiple Intelligence. Some of these will apply to how you like to learn, and others will not.

Ranking: There are nine items in each group. For each group, rank the items according to how they apply to you. Put a 1 next to the item which is most like you. Put a 2 next to the item which is second most like you. Do this for each item until you have numbered every item with a number from 1 to 9. The item least like you should be 9. Do not use a number more than once in each group.

Rank each of the following 9 items from 1 to 9.

1. I live an active lifestyle.
2. Meditation exercises are rewarding.
3. I am a "team player".
4. Fairness is important to me.
5. Structure helps me be successful.
6. I enjoy many kinds of music.
7. My home has a recycling system in place.
8. I keep a journal.
9. I enjoy doing three dimensional puzzles.

Rank each of the following 9 items from 1 to 9.

10. I enjoy outdoor games.
11. Questions about the meaning of life are important to me.
12. I learn best interacting with others.
13. Social justice issues concern me.
14. I get easily frustrated with disorganized people.
15. I have always been interested in playing a musical instrument.
16. Animals are important in my life.
17. I write for pleasure.
18. I can recall things in mental pictures.

Rank each of the following 9 items from 1 to 9.

19. I like working with tools.
20. I enjoy discussing questions about life.
21. Things such as clubs and extracurricular activities are fun.
22. I learn best when I have an emotional attachment to the subject.
23. Step-by-step directions are a big help to me.
24. Remembering song lyrics is easy for me.
25. Hiking is an enjoyable activity.
26. Foreign languages interest me.
27. I can imagine ideas in my mind.

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## APPENDIX E: OLRS SURVEY

This survey is specifically designed to better understand students' learner characteristics and technology capabilities. The survey will test your readiness for either hybrid classes, which involve learning both online and in a classroom, or online classes which do not involve a classroom. Since you are registered in a foreign or second language class, answer the questions with your language class in mind. To ensure anonymity, respondents' names are not included in the survey. It takes approximately 15 minutes to complete the survey.

1. I am confident in my ability to excel in a college program.

Strongly Disagree

Disagree

Agree

Strongly Agree

2. Please answer the following question as a current learner or potential learner in an online or hybrid language course. I do not give up easily when confronted with technology-related obstacles, such as Internet connection issues, difficulty with downloads, difficulty locating information, or being unable to contact instructor immediately, etc.

Strongly Disagree

Disagree

Agree

Strongly Agree

3. Please answer the following question as a current learner or potential learner in an online or hybrid language course. I believe I am responsible for my own education; what I learn is ultimately my responsibility. For example, I am responsible for communicating with my professor when I have difficulty understanding, obtaining answers to questions I might have about assignments, material, and content, etc.

Strongly Disagree

Disagree

Agree

Strongly Agree

4. Please answer the following question as a current learner or potential learner in an online or hybrid language course. I am comfortable working in alternative learning environments. For this question, alternative learning environments are defined as spaces outside of the traditional classroom such as library, online, home, etc.

Strongly Disagree

Disagree

Agree

Strongly Agree

5. Please answer the following question as a current learner or potential learner in an online or hybrid language course. I am comfortable expressing my opinion in writing to others.

Strongly Disagree

Disagree

Agree

Strongly Agree

6. Please answer the following question as a current learner or potential learner in an online or hybrid language course. I am able to express my opinion in writing so that others understand what I mean.

Strongly Disagree

Disagree

Agree

Strongly Agree

7. Please answer the following question as a current learner or potential learner in an online or hybrid language course. I work well in a group. For example, I am an active communicator in a group, I contribute my fair share in a group, etc.

Strongly Disagree

Disagree

Agree

Strongly Agree

8. Please answer the following question as a current learner or potential learner in an online or hybrid language course. I am good at completing tasks independently.

Strongly Disagree

Disagree

Agree

Strongly Agree

9. Please answer the following question as a current learner or potential learner in an online or hybrid language course. I am comfortable responding to other people's ideas.

Strongly Disagree

Disagree

Agree

Strongly Agree

10. Please answer the following question as a current learner or potential learner in an online or hybrid language course. I give constructive and useful feedback to others even when I disagree.

Strongly Disagree

Disagree

Agree

Strongly Agree

11. Please answer the following question as a current learner or potential learner in an online or hybrid language course. I organize my time to complete course requirements in a timely manner.

Strongly Disagree

Disagree

Agree

Strongly Agree

12. Please answer the following question as a current learner or potential learner in an online or hybrid language course. I regulate and adjust my behavior to complete course requirements.

Strongly Disagree

Disagree

Agree

Strongly Agree

13. Please answer the following question as a current learner or potential learner in an online or hybrid language course. I understand the main ideas and important issues of readings without guidance from the instructor. For example, I can read for comprehension without guided questions from the instructor.

Strongly Disagree

Disagree

Agree

Strongly Agree

14. Please answer the following question as a current learner or potential learner in an online or hybrid language course. I achieve goals I set for myself.

Strongly Disagree

Disagree

Agree

Strongly Agree

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## APPENDIX F: ADDITIONAL SURVEY QUESTIONS

15. Learning another language in a hybrid setting (both in a classroom and online) is the best option for me.

Strongly Disagree

Disagree

Agree

Strongly Agree

16. Learning another language in an online setting (only online with no time in a classroom) is the best option for me.

Strongly Disagree

Disagree

Agree

Strongly Agree

17. Learning another language in a classroom setting is the best option for me.

Strongly Disagree

Disagree

Agree

Strongly Agree

## APPENDIX G: DEMOGRAPHICS SURVEY

1. How long have you studied a foreign or a second language?

under 1 year

1-2 years

2-4 years

more than 4 years

2. Which category below includes your age?

17 or younger

18-20

21-29

30-39

40-49

50-59

60 or older

3. Are you male or female?

Male

Female

4. What is the highest level of school you have completed or the highest degree you have received?

Less than high school degree



High school degree or equivalent (e.g., GED)

Some college but no degree

Associate degree

Bachelor degree

Graduate degree

5. Are you presently taking a foreign or second language course fully online?

Yes

No

6. Are you presently taking a hybrid (both online and in a classroom) foreign or second language course?

Yes

No

7. Are you presently taking a foreign or second language course in a traditional classroom setting?

Yes

No

8. Which of the following categories best describes your employment status?

Employed, working 1-39 hours per week

Employed, working 40 or more hours per week



8

online \_\_\_\_

hybrid \_\_\_\_

more than 8

online \_\_\_\_

hybrid \_\_\_\_

11. Have you already taken this survey?

Yes

No

## APPENDIX H: My Multiple Intelligences Score

**Scoring the MIS:** Add your rankings for the 27 items on the MIS according to the following table. Your **lowest** score is your preferred Multiple Intelligence (MI) area.

Bodily/Kinesthetic		Existential		Interpersonal	
Item 1		Item 2		Item 3	
Item 10		Item 11		Item 12	
Item 19		Item 20		Item 21	
<b>Total</b>		<b>Total</b>		<b>Total</b>	
Intrapersonal		Logic		Musical	
Item 4		Item 5		Item 6	
Item 13		Item 14		Item 15	
Item 22		Item 23		Item 24	
<b>Total</b>		<b>Total</b>		<b>Total</b>	
Naturalistic		Verbal		Visual	
Item 7		Item 8		Item 9	
Item 16		Item 17		Item 18	
Item 25		Item 26		Item 27	
<b>Total</b>		<b>Total</b>		<b>Total</b>	

### My Multiple Intelligence Area Preferences

1. My <b>most preferred</b> MI area (My lowest score)	
2. My <b>second most preferred</b> MI area (My next lowest score)	

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## **APPENDIX I: Permission to Include Surveys in Dissertation**

Sent: Thursday, June 05, 2014 12:27 PM

To: La Piana, Noreen Davis (College of General Studies Instruct)

Subject: Re: Can I put the survey in my dissertation when I publish it?

If you don't hear back from Barb just go ahead and do it, we know it will be cited. I'm not sure if Barb is traveling, I haven't had return mail from her either.

Best,

Meliss

From: "<La Piana>", "Noreen Davis (College of General Studies Instruct)" >

Date: Thursday, June 5, 2014 12:25 PM

Can I put the survey in my dissertation when I publish it?

I wrote earlier and asked if I could include the survey in my published dissertation as an appendix. You didn't get back to me, so I haven't done anything yet. It will be put into the Digital Commons, an open-access site that belongs to the university for theses and dissertations. I'd also like to send it to the Foreign Language Annals. Thank you so much for your time.

Noreen La Piana 1997

Spanish Adjunct Instructor

College of General Studies & School of Education

**LIBERTY UNIVERSITY**

Training champions for Christ since 1971

From: McClellan, Joyce

Sent: Wednesday, April 16, 2014 9:44 AM

To: La Piana, Noreen Davis (College of General Studies Instruct)

Cc: Hahnlén, Sharon

Subject: RE: Would you give me permission to include your survey in my dissertation?

Yes...of course you can use it! Please send me your dissertation when finished. I would like to read it.

Good luck!

From: La Piana, Noreen Davis (College of General Studies Instruct)

Sent: Wednesday, April 16, 2014 7:46 AM

To: McClellan, Joyce

Cc: Hahnlén, Sharon

Subject: Would you give me permission to include your survey in my dissertation?

Thank you so much for giving me permission to use your survey in my study! Could I include the survey (with the additions I made) in my dissertation? I have it in my appendices, but will remove it if I don't hear from you. I would like to send it to a journal, also, with your permission.

I appreciate all your help. Thank you in advance either way.

Noreen La Piana 1997

Spanish Adjunct Instructor

College of General Studies & School of Education

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