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Exploration of student perceptions of autonomy, student-instructor dialogue and satisfaction in a web-based distance Russian language classroom: a mixed methods study

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EXPLORATION OF STUDENT PERCEPTIONS OF AUTONOMY, STUDENT-INSTRUCTOR DIALOGUE AND SATISFACTION IN A WEB-BASED DISTANCE RUSSIAN LANGUAGE CLASSROOM: A MIXED METHODS STUDY

by

Marina V. Kostina

An Abstract

Of a thesis submitted in partial fulfillment of the
requirements for the Doctor of Philosophy degree
in Teaching and Learning
(Foreign Language and ESL Education)
in the Graduate College of
The University of Iowa

May 2011

Thesis Supervisors: Associate Professor Michael E. Everson
Assistant Professor Pamela M. Wesely

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Graduate College
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Iowa City, Iowa

CERTIFICATE OF APPROVAL

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PH.D. THESIS

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This is to certify that the Ph.D. thesis of

Marina V. Kostina

has been approved by the Examining Committee for the thesis requirement for the Doctor of Philosophy degree in Teaching and Learning (Foreign Language and ESL Education) at the May 2011 graduation

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Lia Plakans

To my family:
My brother Alex Ruppert
My dad Paul Ruppert
My father, Vladmir Kostin
My brother, Vladimir Kostin
Thank you for believing in me.

To my husband, Christian Stangl
Thank you for being my greatest teacher.

To my mother, Irina Kostina
You are the one who made it all possible.

In loving memory of Elsa Agababova

You cannot teach a man anything.
You can only help him find it within himself

Galileo Galilei

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And, when you want something, all the universe
conspires in helping you to achieve it.
Paulo Coelho

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ABSTRACT

The purpose of this mixed methods study was to explore the relationship between autonomy, student-instructor dialogue, and student satisfaction within a web-based distance Russian language course. Forty six (46) students from two US higher education institutions participated in this study. Using an Exploratory Model with the elements of an Explanatory Model (Creswell & Plano Clark, 2007), the qualitative and quantitative data were collected at the middle and at the end of the course to provide thorough investigation of the three variables, to reveal their interactions with each other, and to discover whether these variables and their relationship change over time. Qualitative data were used to explore the aforementioned constructs, and to enhance the instrument tested in the subsequent quantitative phase. An additional quantitative phase at the end of the course, and follow-up qualitative interviews were provided to discover the changes that occurred in the main variables and in their relationships throughout the course. Content analysis was utilized for the interviews, while reliability (Cronbach alpha) analysis, correlational analysis, t-test, and non-parametric Wilcoxon and sign test were used for the data analysis of the surveys. Findings revealed that autonomy, dialogue, and satisfaction have significant correlation at the beginning and the middle point of the course. All three variables grew throughout the course, however the relationships among them significantly decreased towards the end of the course. The conclusions include suggestions and implications for teachers, students, and course developers.

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CHAPTER I

INTRODUCTION

Background and Rationale

Web-based distance learning (DL) education has gained popularity in the last few years and is expecting tremendous growth in the future (Pisel, 2008). The National Center for Education Statistics (2008) estimated that in the 2006–07 academic year over 12.2 million students enrolled in college-level, credit-granting distance education courses. In an attempt to define DL, scholars have proposed that DL is a type of formal learning in which the student follows a planned and guided learning experience and that implies a geographical distance separating the learner from the teacher and often from other learners (Holmberg, 1986; Tasker, 2010). Web-based DL is a goal-oriented synchronous and/or asynchronous process involving the interactions of members of the learning community with each other and with a technology-based educational platform (Bogomolov, 2008). It is an independent system of education, which has its own objectives, content, methodologies and organization (Bogomolov, 2008; Polat & Petrov, 2003). In the current global economy, DL presents many opportunities for educational institutions to provide cost-effective and *green* learning, not bound by time or geography. DL also offers convenience and flexibility, structured presentation of material, exposure to authentic texts and tasks, visual and audio aids, student control, and customized instruction (Bogomolov, 2008). Despite its numerous benefits, however, web-based DL is far from being a perfect educational environment. While high-tech developments bring attractive and glamorous features to the DL environment, these very same technological advancements have been criticized for dehumanizing the educational process, and have posed several challenges that are specific to this new learning environment.

One of the challenges of the DL environment is that there is still no unified theory developed to account for this educational setting (Gokool-Ramdoo, 2008). Moreover, the foreign language (FL) context brings its own unique challenges that must be taken into account in DL (White, 2009). This study was based on Transactional Distance Theory (Moore, 1993, 2006, 2007) and a contextual framework of Dynamic Interrelational Space (DIS) (La Ganza, 2001, 2004). According to Moore (1991, 1993), transactional distance is not a physical but a perceived distance that often leads to feelings of isolation and that contributes to high dropout rates among students in distance education. Transactional distance is the "psychological space or communications gap between students and instructors that must be negotiated in order to maximize learning" (Burgess, 1991) and is a function of three components: dialogue, learner autonomy, and structure. This distance decreases as student-instructor dialog increases, or as course structure decreases, and vice versa (Saba & Shearer, 1994). When the distance is big, the demands on autonomy are high. The theory emphasizes the importance of the relationship between the instructor and the student, and considers student-instructor dialog and student autonomy as critical aspects of distance education. According to La Ganza (2001, 2004, 2008) interrelation between the instructor and the student becomes of greater importance in a FL DL context. Interrelation is based on the idea that in order to develop learner's autonomy online, teachers should resist influencing their students on the academic level, while supplying various strategies that provide affective connections in order to avoid student isolation and withdrawal from the course.

Such isolation is connected with another notable challenge in DL, i.e., student retention (O'Brien, 2002; Tinto, 2006; Truluck, 2007). Some researchers have suggested

that dropout rates for online courses are fifteen percent to twenty percent higher than for traditional face-to-face (FTF) courses (Carr, 2000; Dreyer, Bangeni, & Neil, 2005; Yukselturk & Inan, 2006). Low retention can result in lost tuition, non-completion and delay in graduation (Tinto, 2006), which is often linked to a lack of physical contact (Gleason, 2004; Martinez, 2003; Yukselturk & Inan, 2006). In a DL classroom, students and instructor are not physically in the same place but in remote locations, and might not ever meet FTF (Allen et al., 2004). Since social presence and connection seem to be important for retention in online courses (Link & Scholtz, 2000; Reio & Crim, 2006), limited opportunities for student interaction with the instructor and/or other learners online often result in a feeling of disconnection and isolation (Egbert & Thomas, 2001; Harrell, 1999; Rovai, 2002).

This isolation is even more felt in a DL foreign language (FL) course, where students are deprived of non-verbal clues, vocal expression, and eye contact that are to the norm in an FTF environment and that is crucial for FL learning (White, 2005). Those who lack self-discipline, autonomy, and motivation, and who do not receive efficient direction from their teachers, feel disconnected and lost in cyber space and may even eventually give up and withdraw from a course (Little, 2001). Working in a more isolated context requires high learner autonomy and a great ability to maintain initial motivation without FTF support and/or encouragement from the teacher. The lack of immediate feedback and ongoing monitoring in a DL class also requires learners to understand new material and continuously develop their language skills on their own. Learners must have a greater ability to manage themselves and their environment and often carry out roles traditionally fulfilled by a teacher in an FTF classroom (White, 1995, 1997). Moreover,

since many DL students are non-traditional learners, they often need to balance family, work, and social commitments (Harrell, 1999). Given the significant effort that it takes to master an FL even in an FTF classroom (Horwitz, 1988; Oxford & Shearin, 1994), it is often difficult for such students to maintain a high level of motivation online. The lack of the required academic or linguistic skills, infrequent monitoring and feedback from their instructors, and/or poor time management can further complicate students' learning processes (Hara & Kling, 1999; Goodfellow, Manning, & Lamy, 1999; Kötter, Shield, & Stevens, 1999). Therefore, isolation online may cause many obstacles for learners. Learners success in such environments largely depends on their autonomy (White, 2005).

Autonomy in FL DL

Over the past several decades there has been a remarkable growth of interest in the concept of student autonomy in FL education. Autonomy has become a *buzz word* (Little, 1991, p. 2) in language learning research as a result of the shift towards communicative approaches in teaching languages that put the student in the center of the learning process (Wenden, 1998). Autonomy is an "ability to have and to hold the responsibility for all the decisions concerning all aspects of this learning" (Holec, 1981, p. 3). It is both a social and an individual construct, which involves the personal development of each student and, at the same time, interaction with others (La Ganza, 2001, 2004). Autonomy can take a variety of forms depending on the learning environment and on learner characteristics, but often autonomous students are expected to assume greater responsibility, to take charge of their own learning (Benson, 2001) and to develop a "capacity for detachment, critical reflection, decision-making, and independent action" (Little, 1991, p. 4). While every learning context requires a degree of

independence, motivation, and discipline from a learner, these aspects are especially critical in FL DL, where the student is largely self-directed and unsupervised and is expected to be more autonomous. When students are more autonomous, "they are likely to be more enthusiastic about learning" (Littlejohn, 1985, p. 258) and will develop a focused and a purposeful approach towards their language acquisition process (Camilleri, 1997; Chan, 2001, 2003; Dam, 1995; Little, 1991). Autonomy also promises to resolve the problem of motivation, even for those students who lack enthusiasm. Autonomous learners possess the skills that help them overcome such motivational obstacles (Little, 2001). Learner autonomy, thus, is very important in any educational environment, but especially, it is crucial in FL DL.

Despite its importance, there are several challenges related to autonomy in the FL DL context. First, a single universal definition of autonomy does not yet exist (Little, 2004). This construct remains obscure, particularly in relation to language learning and teaching at a distance (Benson, 2001). Numerous definitions of autonomy often contain its synonyms, such as "independence" (Sheerin, 1991), "language awareness" (Van Lier, 1996), "self-direction" (Candy, 1991), and "andragogy" (Knowles, 1980). Autonomy has also been defined as a capacity or behavior, as learner responsibility or learner control, as a psychological phenomenon or political notion, and as a developmental skill that depends on teacher autonomy (Benson 2001). Most researchers agree, however, that autonomous learners know the purpose for their learning, accept responsibility for it, set their own goals, initiate their learning activities, and are involved in the ongoing revision and evaluation of their work (Holec 1981; Little 1991). Holistically, learner autonomy can be viewed as a combination of cognitive, metacognitive, affective, and social

dimensions of language learning that are in constant interaction with one another (Little, 2001; Benson, 2001; White, 2005; La Ganza, 2001, 2004).

Another challenge with learner autonomy in a web-based DL context is that it is often confused with self-learning and self-instruction. Traditionally, DL has been a very isolated activity where students work on their assignments independently, such as in correspondence courses (Holmberg, 1986). Most DL courses in the past had a pre-set structure in which the outcomes, the pace, and the content of the courses were predetermined by the course writers and not by the students. If we assume that autonomous learners need to be "able to make significant decisions about what is to be learned, as well as how and when to do it" (Van Lier, L., 1996, p. 12–13), then it seems, that a pre-determined DL environment created obstacles for this process. Distance study today is more than a self-study. According to Holmberg (1989), distance education is "a kind of conversation in the form of two-way traffic" that "occurs through the written or otherwise mediated interaction between the students and the tutors and others belonging to the supporting institution" (p. 27). Learner autonomy, therefore, does not assume self-instruction but presupposes the ability to interact in such traffic.

Finally, technological innovations also bring challenges to the learning process and demand constant growth and expansion of learner autonomy. Students need to exhibit and develop new skills, motivation, and commitment (Kötter 2001; Rogers & Wolff, 2000). They also need to know how to use these high-tech tools to build their language competence and to navigate in a complex, interconnected, and constantly evolving community of peers through discussion forums, chats, blogs, teleconferencing, and other types of interactive activities that were not previously available (White, 2003).

Thus, learners' ability to self-guide their learning process (i.e., to create online identity, to recognize their personal needs and to choose learning opportunities and resources that match these needs) becomes very important in the online classroom (White, 1995). Inevitable technical glitches and slow internet connections may also seriously impair learning and lead to student dissatisfaction with a course resulting in students' withdrawal (Hara & Kling, 1999). These barriers can create the potential for misunderstandings between students and instructors and increase student isolation online.

Student-Instructor Dialogue in DL

Because of the challenges that come with the web-based DL context, online dialogue becomes important for the development of learners' autonomy in this environment (La Ganza, 2001, 2004, 2008; Little, 2001). Effective communication has been found to be one of the key elements of a successful DL course (Berge, 1999; Higgins et al., 2001; Young, 2006), and the lack of such communication can lead to isolation, frustration, and higher dropout rates (Berge 1999; Hara & Kling 2000; Northrup, 2002). Traditionally, interaction occurs when two or more members of the instructional context (e.g., students, instructors, instructional content, or educational platform) participate in reciprocal events that mutually influence one another (Wagner, 1994). This interaction is essential for the educational progress since it allows students to receive new information and construct it into meaningful knowledge (Dewey, as cited in Anderson, 2003).

Yet, one of the features of DL that receives continuous criticism is its inability to provide a student-instructor dialogue that is comparable to that of an FTF classroom (Kirkup & Jones, 1996). The ambiguity of student-instructor dialogue and delayed

teacher responses caused by the asynchronous environment is also thought to lead to increased student dissatisfaction (Hara & Kling, 2000). Because of the lack of natural conversations in the web-based DL classroom, online teachers need to implement strategies that encourage student-instructor dialogue (Hansson & Wenno, 2005; Pascarella &Terenzini, 2005). Nevertheless, the presence of dialogue itself does not guarantee its effectiveness (Gibbs & Simpson, 2004). In other words, *more* is not necessarily *better* online, as the amount of exchange in a DL web-based course can be overwhelming and can eventually become a huge burden for both students and online professors. In a technology-mediated, often asynchronous environment, there is a definite shift from academic to affective support that instructors have to provide for their learners (White 2005; La Ganza, 2001), but many teachers still do not know how to transfer their instructional talents into the online environment. Consequently, colleges and instructors often set up student-instructor dialogue in a way that is familiar to them, but that is not necessarily structured according to the needs and aspirations of the students.

Student Satisfaction in DL

Studying students' perceptions can provide understanding for distance instructors on how to adapt course structure and match the appropriate level of interactive dialog with the specific abilities and needs of individual students. Nonetheless, student satisfaction has not been given the proper attention in the distance learning environment (Biner, Dean, & Mellinger, 1994; Richards & Ridley, 1997). It is, therefore, important to conduct more research that examines the teaching and learning process from the student's viewpoint (Areti, 2006; Biggs, 2006; Clayton, 2004; Thiagarajan & Jacobs, 2001; Trinidad & Pearson, 2004). Student satisfaction can be defined as "the student's

emotional reactions to college" (Reed et al., 1984, p. 68) and the student's favorable evaluation of the outcomes and experiences associated with his/her educational experience (Astin, 1993; Oliver& DeSarbo, 1988). The research that has been conducted in a classroom-based environment has shown that there is a high correlation between student satisfaction and retention (Astin, 1993; Edwards & Waters, 1982). Studies in DL (Bailey et al., 1998; Northrup, 2002; Omoregie, 1997) and FL (Horwitz, 1990; Kern, 1995; & Schulz, 1996) demonstrate similar results. Satisfaction is seen as an important intermediate outcome (Astin, 1993, p. 278) because it does not directly affect student academic success but is indirectly connected with it (Moore & Kearsley, 1996). Student satisfaction is linked with the student's level of motivation (Chute, Thompson, & Hancock, 1999; Donohue & Wong, 1997), which, in turn, is important for successful FL learning (Gardner & Lambert, 1959; Dörnyei, 2003, 2005).

Purpose of the Study

The purpose of this study was to explore the relationship between student satisfaction with a web-based DL Russian language course and two components of Moore's (1991) Transactional Distance Theory: learner autonomy and student-instructor dialog using a mixed method design. I excluded structure, the third component of the theory, because I wanted to concentrate on the variables that DL teachers control most, i.e. autonomy and dialogue. Both qualitative and quantitative data were collected and analyzed in order to shed light on the complex nature of and relationships between student autonomy, student-instructor dialogue, and satisfaction, and to explore their relationships. Using an Exploratory Model with the elements of an Explanatory Model (Creswell & Plano Clark, 2007), I collected both qualitative and quantitative data at the

beginning and at the end of the study to provide a thorough investigation of my three variables to reveal their interactions with each other and to discover whether these variables and their relationships changed over time. The following research questions were addressed in the study:

RQ1. What is the relationship between perceived learner autonomy and student perception of student-instructor dialogue? To what extent does it change throughout the course?

RQ 2. What is the relationship between perceived learner autonomy and student satisfaction? To what extent does it change throughout the course?

RQ 3. What is the relationship between perceived student-instructor dialog and student satisfaction? To what extent does it change throughout the course?

Educational Significance of the Study

The findings of my study can benefit multiple constituencies, including students who enroll in online courses, faculty who teach and develop online courses, and course developers. It offers some practical suggestions to these members of the DL environment on how to effectively participate with, lead, and create the DL process. This study also contributed to Transactional Distance Theory as it accounted for the limitations of previous research and applies this theory in a new FL DL context. The field of FL DL can also gain from this study, as it provided a theoretical foundation explaining instructional practices on how to teach and learn languages at a distance.

In addition, my study demonstrated that mixed methods can be used for research on less commonly taught languages with traditionally low enrollments and, therefore, only few quantitative studies. By utilizing a mixed methods model, I analyzed both

qualitative and quantitative data in a more coherent manner. Furthermore, my study may add to the field of mixed methods research by providing a new Exploratory Model with the elements of an Explanatory Model to study complex phenomena such as autonomy, dialogue, and satisfaction.

Finally, the concept of autonomy is still obscure in the field of FL. Despite the fact that the field recognizes importance of student autonomy, a single universal definition of this construct does not yet exist (Little, 2004). Therefore, it remains vague in the field of FL teaching and in the FL DL context. My research may potentially contribute to the development of new definitions of learner autonomy in both FL and FL DL fields.

Operational Definitions

Autonomy is an "ability to have and to hold the responsibility for all the decisions concerning all aspects of this learning" (Holec, 1981, p. 3). It is a developmental ability that needs to be taught (Little, 2001; White 2005, 2009; La Ganza, 2004, 2008).

Student-instructor dialogue is a two-way communication and comprises various forms of interaction between learners and teachers (Moore, 1993).

Student satisfaction is "the student's emotional reactions to college" (Reed et al., 1984, p. 68) and/or a student's favorable evaluation of the outcomes and experiences associated with their educational experience (Oliver and DeSarbo, 1988).

Course structure is the extent to which course components can be receptive and accommodating to individual needs of the learner (Moore, 1993). It includes "learning objectives, content themes, information presentations, case studies, pictorial and other illustrations, exercises, projects, and tests" (Moore & Kearsley, 1996, pp. 202-203).

Distance learning is a type of formal learning in which the student follows a planned and guided learning experience (Holmberg, 1986). It implies that a geographical distance separates the learner from the teacher and usually that the learner is geographically separate from the learning group (Tasker, 2010).

CHAPTER II

LITERATURE REVIEW

Introduction

The complexity of the constructs of learner autonomy and student-instructor dialogue in a distance foreign language (FL) classroom puts extra demands on any researcher's choice of an appropriate theory that would provide a solid framework for the analysis of these concepts. Moreover, because FL distance learning (DL) education is a relatively new field, no unified theory has been developed yet to account for the specifics of this environment (White, 2009). Therefore, researchers must choose from a variety of related theories of DL that include autonomy and dialogue as their key ingredients. Moreover, the context of FL learning brings its own unique challenges that must be taken into account while framing my study. In my overview of the literature on DL and FL DL, I found two approaches seem to complement each other well, as they provide two necessary perspectives through which autonomy and dialogue can be seen: the one of DL and the other of FL DL. Thus, I will explore my research questions through the lens of student perceptions by pairing the theoretical framework of Transactional Distance Theory (TDT) (Moore, 1993, 2007) with the contextual framework of Dynamic Interrelational Space (DIS) (La Ganza, 2001, 2004). I will approach my study by looking at student perceptions of learner autonomy and dialogue through my data sources. I will address them within the theory of DL, applied to the FL DL context and relate them to my dependent variable of student satisfaction. My data analysis and findings, reflecting this complex process, are described in detail in Chapter IV and in Chapter V. Such a

complex process of focusing on my main constructs has shaped the design of my study and my analysis of the data, which Figure 1 reflects.

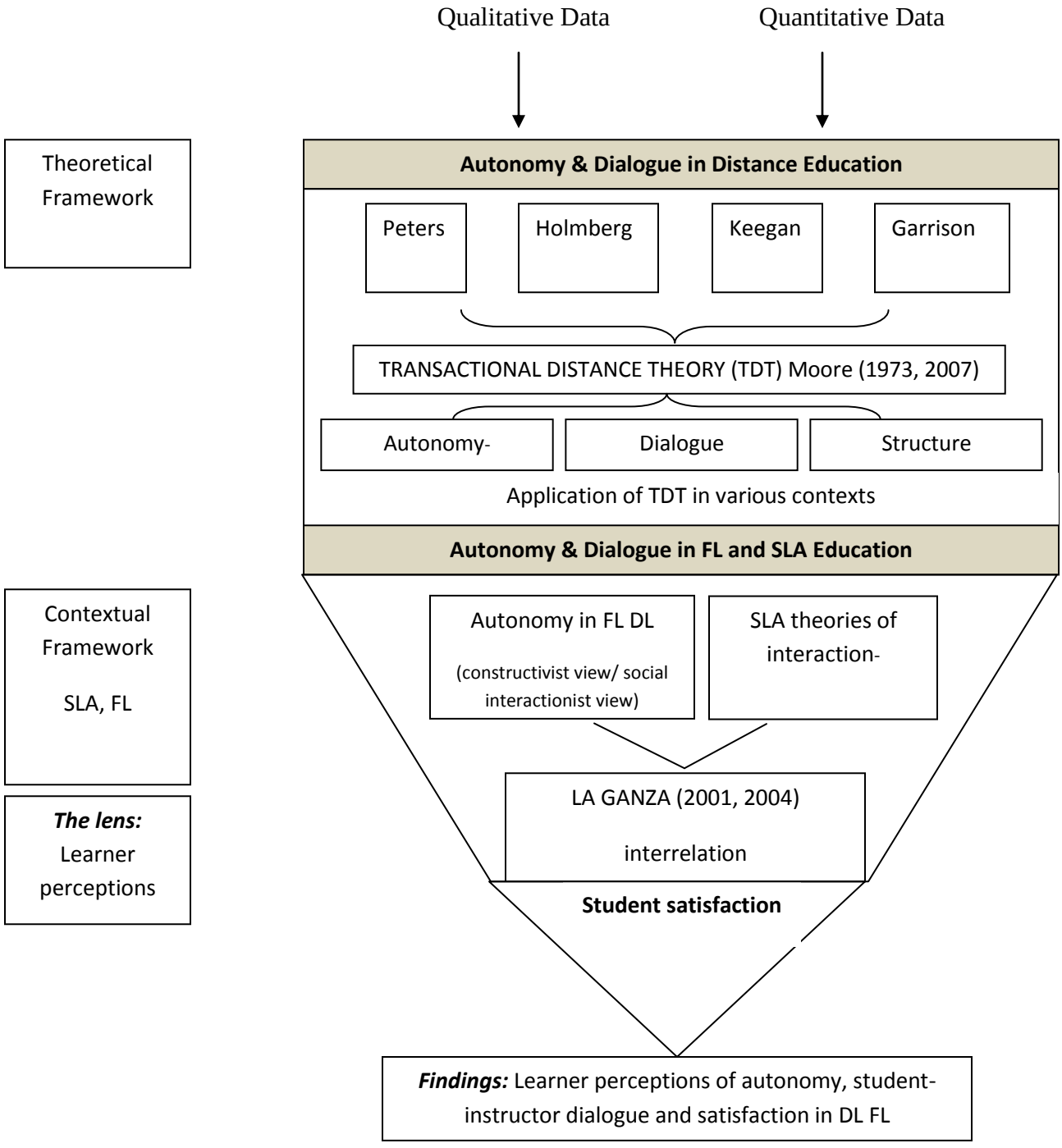


Figure 1. The Theory, the Context and the Lens of the Study

Autonomy and Dialogue in DL Theories

The last three decades have witnessed the growth of DL into a unique discipline but a central unifying theory has yet to be found (Gokool-Ramdoo, 2008). Distance education, a synchronous or an asynchronous process in which time and space separate the student and instructor (Holmberg, 1986), is currently the fastest growing form of education in general and of foreign language education in particular (White, 2009). Once regarded as a nontraditional delivery system, it is now becoming mainstream education in many fields. In attempts to define distance education, some researchers have regarded it as a unique discipline (Holmberg, 1986), while others have seen it as a part of the traditional educational system (Keegan, 1986). As a result, fragmented frameworks dominate the field and DL suffers from the lack of a unified theoretical foundation (Saba & Shearer, 1994; White, 2009). While various theorists have continued to develop their views of DL, there is still debate over which theory is the most appropriate to adopt as a global theory of distance education. In particular, technology often has received more attention than distance education itself and has made it difficult to link theoretical and practical development (Moore, 2007). Consequently, much of the research and practical work in the field have been carried out in an atheoretical manner (Gibson, 2003; Glickman, 2006), which may create a situation where technology supersedes pedagogy and sacrifices the latter in the process (Gokool-Ramdoo, 2008).

My overview of DL literature reveals that each of the most popular theories has made contributions to the field of DL. However, my choice of a guiding theory for my study is based on the identification of the limitations of these theories and in finding a theory that addresses these weaknesses. In this chapter, I will discuss various DL theories

and will explain why I did not choose them for my study. Then I will introduce Transactional Distance Theory (Moore, 1973, 2006, 2007), examine its evolution and its main components, and demonstrate why I believe it is the best fit for my research questions. I will also describe how this theory has been validated in the field of DL and how it may be expanded into the FL DL context. Figure 1 illustrates how Transactional Distance Theory has incorporated the elements of the main DL theories and, at the same time, may unify the fragmented views of autonomy and dialogue that exist both in Second Language Acquisition (SLA) and in FL literature. At the end of this discussion, I will explain some limitations that pertain to Transactional Distance Theory and will elaborate on why I chose an additional DIS model proposed by La Ganza (2001, 2004) for my study. This additional framework can help account for the unique context of studying FLs in web-based distance classrooms. At the end of the chapter, I will discuss studies that have attempted to relate the variables of autonomy and/or dialogue to student satisfaction.

Overview of DL Theories

Since the 1950s, many researchers have tried to theorize about distance education (Black, 2007). It has been suggested that there needs to be a global theory that can explain all activities pertaining to DL (Saba, 2003; Moore, 2007). However, there has been a reluctance in the field to choose one theory as the most comprehensive, which, according to Gokool-Ramdoo (2008), has placed distance education at a so-called *theoretical impasse*. In their discussion of various DL theories, Saba (2003) and Garrison (2000) emphasized two main directions. Some early DL theories have seemed to be preoccupied with the organizational side of distance education, while others have been

concerned with the transactional issues and have placed the learner at the center of the learning process. In my discussion of these theoretical frameworks, I will highlight the advantages of each theory and will demonstrate its limitations. I will also show how Transactional Distance Theory may account for its weaknesses. This discussion will provide support for my choice of a guiding framework for my study.

One of the first theories of distance education was developed by Otto Peters (1967). The researcher represented distance education as an industrialized form of teaching and learning. In order to achieve maximum profits with lower cost, it was important to develop a final product (educated student) around key concepts of industrialization, such as mass production, division of labor, and standardization (Peters, 1998). Obviously, mass-produced and mass-delivered education allowed institutions to attract those students who otherwise would not have had such educational opportunities. The division of labor in distance education, according to Peters, involved numerous specialists that developed, organized and delivered education, resulting in a much more advanced product. Standardization also offered advantages, especially for products that have high quality. As a result, this theory brought advantages at lower costs to the consumer (student) and with higher benefits to the producer (distance education institution). Despite its numerous insights, this model has been criticized for its limited view of education and its disregard for the most important features of the educational context, such as communication and interaction. Garrison (2000) noted that the Industrial Model was not a theory of teaching and learning but rather an interesting collection of ideas on how to properly organize distance education. It seemed that Peters himself realized the limitations of the model and in 1993 discussed the need to develop a new

theory. From that point, Peters started a discussion of the role of distance education in post-industrial society (Peters, 1993, 1998, 2000) and suggested that new DL models need to be focused around the concepts of self-directing and self-controlling (i.e., on student autonomy). To conclude, The Industrial Model theory brought valuable insights into the organization of the DL experience. However, it lacked detailed explanations of the roles of learner and student-instructor dialogue, which are the two main constructs of my study. Therefore, I did not choose this theory to frame my study.

Another influential theorist in the field of distance education, Börje Holmberg (1986, 1989a, 1989b) developed a theory of guided didactic conversation around the notions of independence, learning, and teaching. Holmberg believed that autonomy and independence needed to be developed in each student. Holmberg (1989a) saw the importance of autonomy, but he advised that it can be achieved only through deliberate support and guidance that happens during "guided didactic conversation" (p. 43) between the teacher and the learner. He believed that such conversation could be created with the help of high quality self-instructional materials. Holmberg maintained that it is the role of the course developer to create a stimulating conversation with the learner through these materials. Holmberg's theory was one of the first theories to place autonomy at the core of the learning process and to acknowledge interpersonal aspects of distance education. This theory also recognized empathy as an important part of teacher-learner interactions (Holmberg, 1986). It has since greatly influenced the design of courses and teacher-learner interactions. Nevertheless, Garrison (2000) argued that "despite the fact that conversation was the defining characteristic in Holmberg's theory of distance education, this theory was directed to the pre-produced course package and clearly within [the]

industrial paradigm" (p. 8). In conclusion, Holmberg's ideas of autonomy and student-instructor interactions were of high importance for DL. However, the context within which these ideas were discussed is different from that of my study. Holmberg's theory was developed with a focus on correspondence courses and on one-to-one communication. Consequently, it did not give much consideration to the interactions that occur in a web-based DL environment that I explore in my research. Therefore, I will not use it as my main theoretical framework.

A different view of distance education was expressed in the theory of reintegration of the teacher and the learner by Keegan (1993) who suggested replicating face-to-face (FTF) educational communication in distance education. Keegan (1993) recommended artificially reconstructing this experience through intact classrooms and through live two-way audio-visual interaction. The researcher believed that such reintegration may compensate for the distance between students and teachers, as well as for the lack of eye-to-eye contact, which is so important in education. Keegan's theory, despite its interesting view of the relationship between DL and FTF classrooms, has been highly criticized. Many researchers have argued that the DL context is different from the FTF context and that DL is an independent system of education that has its own objectives, content, methods, and organization (Bogomolov, 2008; Polat & Petrov, 2003). Further, Keegan's depiction of distance education placed less trust in the learner's ability to take responsibility and therefore did not emphasize learner autonomy as a central concept. These two limitations of Keegan's theory make it a poor fit for my study.

Two other pioneer theorists placed two-way communication at the core of the educational experience, regardless on any separation of the teacher and the student.

Garrison and Baynton (1987) proposed a theory of communication and learner control that emphasized teaching and learning transaction. This theory was a clear shift from the organizational concerns of the industrial model to pedagogy. The focus on learner control replaced the concept of independence, which equated to self-study that was often a core element of distance education. The researchers suggested that in the traditional view of independence in DL there was rarely concern for supporting the learner or recognizing the demands placed on the learner. In contrast, they believed that learner control is developed and maintained through interaction. Such control is different from self-reliance whereby the learner exists separately from external effects. On the contrary, the degree of control is negotiated through communication between the teacher and the learner. Therefore, control is a collaborative notion as it depends on both the teacher and the learner and, at the same time, exists separately from them. Accordingly, the goal of communication in DL was to develop control through ongoing collaboration. This theoretical framework moved away from an organizational view of DL to a transactional one. However, Transactional Distance Theory, as I will discuss in the next section, is a more comprehensive theory that incorporates both approaches and does not disregard the value of either organizational or transactional issues. Therefore, I view Garrison and Baynton's (1987) theory as a part of Transactional Distance Theory (Moore, 1973, 2007) and choose to select a more comprehensive theory that incorporates the insights of other theories of DL.

Transactional Distance Theory

In this section I will describe Transactional Distance Theory, a distance learning model that has greatly influenced and shaped my approach to the constructs of autonomy

and student-instructor dialogue and that I have chosen to be the main theoretical framework for my study. Transactional Distance Theory seems to be the third movement in the theoretical development of distance education, whereby the focus has switched from organizational to pedagogical issues and has resulted in an emphasis on transaction. Transactional Distance Theory also appears to have numerous advantages over the other theories in that it incorporates all three main dimensions: organizational, pedagogical and transactional. "It is a scientific theory that carries the stem of all other theories" (Gokool-Ramdoo, 2008, p. 5). Moore and Kearsley (1996) described this theory as a matrix within which all other theories can find root. According to Jung (2001), Transactional Distance Theory "provides a useful conceptual framework for defining and understanding distance education in general, and as a source of research hypotheses more specifically" (p. 527).

Transactional Distance Theory has stood the test of time. Two decades after was conceived, it is still considered the most widely accepted theory of distance education and is often seen as a global comprehensive theory of DL (Gokool-Ramdoo, 2008). In the early 1970s when Moore was studying educational theory and researching learner autonomy in correspondence courses, he discovered that no research has been conducted in a context where student and instructor were physically separate, and that this type of teaching and learning was not supported by then existing educational theories (Moore & Kearsley, 1996). During his initial research Moore observed that communication between teacher and student (i.e. dialogue) during class depended on the structure of the course. In a highly structured course there was less room for dialogue, which according to Moore would create feelings of separation, isolation, and confusion and eventually lead to withdrawal from the course (Moore, 1986). In such structured courses, students felt very

separated from their instructor. Moore collected and analyzed over 2,000 items of literature on teaching methods that included television-based instruction, correspondence instruction, computer-assisted instruction, telephone instruction, and tape teaching instruction (Moore, 1972). After his analysis, he proposed a new distance teaching theory that placed emphasis on independent learning and teaching as well as on communication between a learner and a teacher separated by time or space. Moore (1973) called this communication *distance teaching* and defined it as the "instructional methods in which teaching behaviors are executed apart from the learning behaviors" (p. 664). Moore suggested that the distance between the student and a teacher is not measured in miles or time. Rather, he saw distance teaching as a function of two components: a dialogue and individualization. Dialogue is the extent to which students communicate with their instructors. Individualization is the extent to which students have control over the pace at which they receive information and provide responses (Moore, 1973). The notion of transactional distance at this point was not introduced by Moore. He first used this term in the beginning of the 1980s and stated that this concept was borrowed from an American philosopher John Dewey (Moore, 1993).

In this early theory, dialogue and individualization defined the distance teaching system but did not explain the influence of distance on the learner. Moore (1973) believed that the effect of distance experienced by learners varied by their perception of this distance. He maintained that a student's ability to function autonomously or self-direct his or her own learning was important for success in DL. Moore also stated that distance students had to be more autonomous than students in a face-to-face environment and that, therefore, they must accept a higher degree of responsibility for their learning

than students in an FTF classroom. He also suggested that instructors should be ready to assist students who needed additional help and, for a short time, abandoned their autonomy. This moved the teacher from the leading role in a traditionally teacher-centered classroom to a more secondary role as teaching became more responsive as opposed to directive. That is why Moore's early theory was based on students who had high independent skills and who were placed in well-designed programs.

This independent learning and teaching theory was Moore's first attempt to create a general theory of distance education (Moore & Kearsley, 1996). After this early theory, Moore conceived the term *transactional distance* to identify the pedagogical distance of understanding in the context of geographic separation of students and instructors (Moore & Kearsley, 1996), which gave birth to Transactional Distance Theory (Moore, 1993). During the next 20 years of research in distance education, Moore's concepts and assumptions were refined and were refocused into the current understanding of Transactional Distance Theory. According to this theory, transactional distance can be a part of any educational context, distance or FTF, wherein the student is not engaged in learning and lacks interest in participating in meaningful interactions with other members of the learning environment (Moore, 1993, 2007; Saba, 2000; Stirling, 1997). This theory assumed that the most profound impact on distance education is pedagogy and not the physical or temporal distance that separates instructor and learner. Hence, transactional distance is a cognitive space between instructors and learners. "There is now a distance between learner and teacher which is not merely geographic, but educational and psychological as well. It is a distance in the *relationship* of the two partners in the educational enterprise. It is a *transactional distance*." (Moore, 1991, p. 155).

Moore's theory was based on the interplay of three constructs: autonomy, student-instructor dialogue, and structure. The first element of Moore's theory was autonomy. Learner autonomy is the ability of the student to make decisions about his or her own learning experience. It is the extent to which a learner exerts control over learning procedures. Traditionally, the majority of institutions had focused on the teaching components of education and had not considered factors that supported student learning (Chen & Willits, 1998). In a teacher-centered classroom, students were often seen as passive recipients of information rather than as active seekers of knowledge (Moore, 1986). Moore (1972) stated that distance education programs needed to develop support for different students' capacities for decision-making. He suggested that learner autonomy should be a goal of distance education. Moore (1972) maintained that the success of a school could be measured by its ability to prepare a student to be autonomous.

Distance education had been predominantly teacher-centered because it had lacked interactive media and interactive components (Moore, 1993). Therefore, this form of education was necessarily seen as a very autonomous activity, equal to independent learning (Holmberg, 1986). With the emergence of web-based education instruction became more student-centered due to the creation of new ways of interaction between teachers and students that were developed for this new context. As a result, students today have increased access to resources and additional options to control both the instructional interaction and content. Finally, the asynchronous type of interactions in a web-based course provides the student with autonomy and time to reflect and create thoughtful responses, increasing the level of his or her interaction (Dougherty, 1998).

Because students now can be actively engaged in interactive DL courses, dialogue and interaction have become important for their success. Although not all students are highly autonomous, each has the ability and potential to take responsibility for his or her own learning (Moore & Kearsley, 1996). Therefore, Moore (1993) believed that distance education programs should develop ways to encourage and support students self-directing skills. To conclude, Moore (1993) chose learner autonomy as a foundation of his Transactional Distance Theory because the distance is defined by instructors structuring their courses and students taking responsibility for their learning. When students exhibit more control, they influence their own response to learning, thus reducing the transactional distance in the educational process (Saba, 2000).

Dialogue is the second component of Moore's theory, which is communication or transaction between an instructor and a student that occurs when a teacher and a learner build knowledge through the negotiation of meaning. Dialogue "helps us focus on the interplay of words, actions, and ideas and any other interactions between teacher and learner when one gives instruction and the other responds" (Moore & Kearsley, 1996, p. 201). The extent and nature of this dialogue is determined by the design of the course, the personalities of the teacher and the learner, the subject matter of the course, and other environmental factors, such as the existence and size of a learning group, the language, and the medium of communication (Moore & Kearsley, 1996).

Moore (1989) expanded his view of dialogue in his later theory of interactions, which included three different types of learner interactions necessary for a successful DL experience: learner-instructor, learner-content, and learner-learner. Moore concluded that not only do dialogue and structure interact, but that dialogue should include the

maximum effectiveness of the three interactions in order to achieve success in distance education:

> Educators need to organize programs to ensure maximum effectiveness of each type of interaction, and ensure they provide the type of interaction that is most suitable for the various teaching tasks of different subject areas, and for learners at different stages of development. The main weakness of many distance education programs is their commitment to only one type of medium (Moore, 1989, p. 5).

Traditionally, in earlier versions of DL programs, the goal has been to promote interactions with the content through text-based programmed instruction or through self-paced computer-assisted training applications (Moore, 1989). In correspondence courses, print-based teaching media often had been enriched with study guides that accompanied textbooks and had provided explanations of the texts and directions for their study. Because of technological innovations, students are now able to interact with a wider variety and with more types of content resources, such as audio, video, graphics, animations, and simulations. In early DL programs, interaction with peers and collaboration was almost impossible. Today, learner-learner interaction creates an online learning community that can help with pedagogical goals through stimulation, motivation, and effective group collaboration (Moore, 1989). Moore (1989) believed that the ability to interact with their peers allows students to apply and to evaluate their knowledge. Such interactions in web-based courses have the potential to reduce the feelings of isolation as both instructional and social interaction becomes possible online (Northrup, 2001). Student-instructor interaction in a DL course is also very important. It greatly differs from that found in traditional classrooms because of both the geographic separation and the instructional media that is used in such courses. Despite these

differences, the dialogue between the student and instructor is as crucial in the web-based classroom as it is in any traditional learning environment (Moore & Kearsley, 1996).

The third component of Transactional Distance Theory is structure. Structure is a reflection of the design of the course, or of the instructional program, and it can be either flexible or rigid. According to Moore (1993), its components include learning objectives, thematic content, presentations, case studies, animations, exercises, projects, and exams. Course structure depends on the philosophy of the educational institution, the instructor, the nature of the content, the type of student, and the method or media of delivery (Moore & Kearsley, 1996). Structure indicates the extent to which course components can be receptive and accommodative to the individual needs of learners. Some structures presuppose teachers' control of the learning environment, while others assume independent student work.

As DL programs have evolved, so have the structures accompanying them. In the majority of early DL programs, all course elements, including content, were pre-determined and were designed well in advance of delivery. Therefore, in such programs course structure had to be carefully organized (Brown & Voltz, 2005). In rigid structures, like broadcast or recorded television, all elements of the course design were preset. Here, transactional distance was very high because of the lack of student-teacher interaction and flexibility. The instruction found in such rigid structures was not individualized and offered students very small or no options for the selection of learning goals. They also had pre-set lengths regardless of the speed with which individual learners achieved course mastery. In the current literature, however, there has been a shift away from the linear approach, with its fixed content and structure, toward a new design characterized

by fluid course elements that are shaped through student-teacher and student-student interactions. Advancements in Computer-Mediated Communications (CMC), such as audio-conferencing and videoconferencing software, interactive television, and so on, have created a space within distance programs for these fluid components (White, 2003). The combination of different modes in a program allows "a choice between modes to suit the task in hand" (Hampel, 2003, p. 25) and provides differentiation. Researchers believed that fluidity of the course structure provides immense opportunities for interaction in a foreign language course (Lamy 2004), creates abundant possibilities for collaboration (Felix 2002; Raskin 2001), and minimizes learner isolation in the distance environment (Shield & Hewer, 1999). In addition, through the use of fluid components, learners are able to create their own social presences and construct their own social identities (Grosse, 2001). Fluid structures are also responsive to students' individual needs and provide various resources and flexibility, as well as dynamic (time-based) and self-organized (hierarchical, non-linear, complex) learning. These students can choose among different paths, organize their content info meaningful contexts, receive information through text, audio, and video, participate in interactive exercises, and learn instructional information at many levels (Hannafin & Land, 1997). Semi-fluid structures combine some elements of the rigid with some elements of the fluid structures. For example, they might have pre-set lengths and course progressions combined with individualized opportunities for practice. Table 1 provides a summary of the various types of structures.

Table 1. Online Course Structure Type

Structure Type	**Rigid**	**Semi- fluid**	**Fluid**
Features	Not individualized, offers very small or no option for selection of learning goals by students; has a pre-set length regardless of the speed with which individual learners achieve course mastery.	Combines some features of rigid and fluid structures.	Provides dynamic (time-based) and self-organized (hierarchical, non-linear, complex) learning and teaching environment in which the student is afforded a level of autonomy congruent with his /her prior learning; learning objectives and content materials s/he wants to learn and must learn.

Finally, course structure plays an important role in distance language learning. The more rigidly a course is structured, the more transactional distance will increase between instructor and student (Saba, 2000). On the other hand, in a more fluid structure designed to accommodate individual students' needs, transactional distance is decreased and students' creativity and meaningful dialogue with instructors are stimulated, leading to greater student satisfaction (Saba, 2000).

In addition to describing its three main components as autonomy, dialogue and structure, Transactional Distance Theory has identified unique relationships that exist among these three constructs. The type of the distance education course inherently assumes which type of dialogue can happen in a class. In some distance education formats (e.g., correspondence courses or computer-based instruction), transactional distance is high as the structure of the course does not allow for frequent student-teacher interaction (Moore & Kearsley, 1996). These courses require high learner autonomy and must be very structured in order to guide learners through their necessary coursework. Web-based DL, by comparison, allows enhanced student-instructor interaction and has the potential to reduce transactional distance. The structure of these types of programs may be more flexible and responsive to each student's level of autonomy (Kearsley, 2000; Moore & Kearsley 1996). As a result, the instructor needs to understand the type of program he/she is dealing with, to recognize the level of autonomy of his or her students, and to organize course elements accordingly.

The summary of the relationships among the main variables in the Transactional Distance Theory is as follows:

1. Increased program structure decreases the extent of dialogue, which in turn increases the extent of transactional distance. According to Moore, "When a program is highly structured and teacher-learner dialogue is non-existent, the transactional distance between learners and teachers is high" (p. 27). The way the variables of dialogue and structure determine transactional distance is shown in Figure 2.

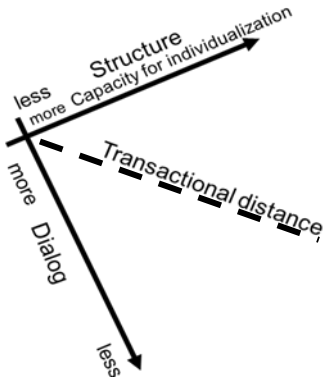


Figure 2. Dialogue and Structure

Source: Moore, M. (2006, October 27). Powerpoint lecture presented at European Distance Education Network. Castelldefels, Spain.

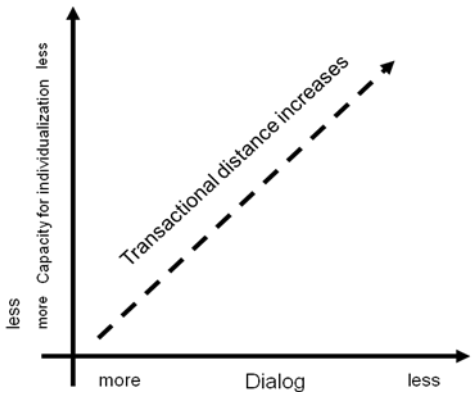


Figure 3. Dialogue, Structure and Transactional Distance

Source: Moore, M. (2006, October 27). Powerpoint lecture presented at European Distance Education Network. Castelldefels, Spain.

2. Dialogue and transactional distance are inversely proportional: as one increases, the other decreases. Moore (1993) stated that "one of the major determinants of the extent to which transactional distance will be overcome is whether dialogue between learners and instructors is possible, and the extent to which it is achieved" (p. 26). Figure 3 shows this interaction.
3. Transactional distance and learner autonomy are directly proportional. Moore (1993) asserted, "the greater the structure and the lower the dialogue in a programme the more autonomy the learner has to exercise" (p. 27). Figure 4 demonstrates this interaction.

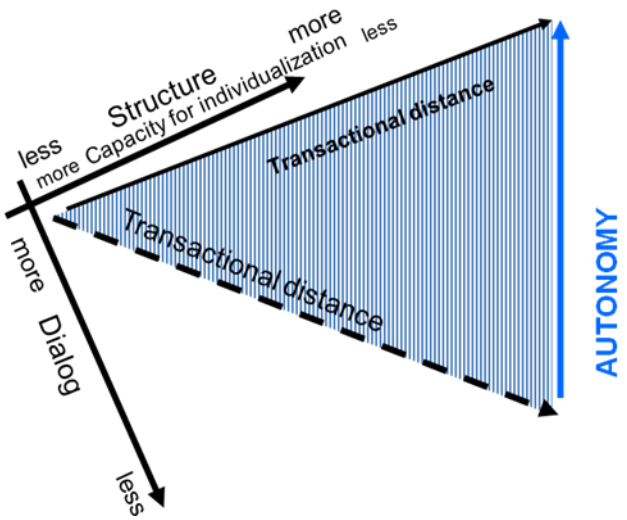


Figure 4. Autonomy and Transactional Distance

Source: Moore, M. (2006, October 27). Powerpoint lecture presented at European Distance Education Network. Castelldefels, Spain.

In conclusion, Moore's theory, originally born in the context of correspondence and telecommunication courses, is also able to accommodate varying types of modern DL programs that are based on technological innovations, including web-based DL programs that utilize synchronous and asynchronous interactions. Transactional Distance Theory incorporates three main elements: autonomy, dialogue, and structure and identifies the relationships that exist among these constructs. Moore's theory has provided suggestions on how to structure DL programs balancing these three main elements in order to reduce transactional distance and promote student learning.

Application of Transactional Distance Theory

Transactional Distance Theory has been popular for more than twenty years and was designed to be applicable to all forms of DL. However, distance education is more complex now than when the theory was first introduced. Various forms of electronic communications that did not even exist in the past are widely used today. These technologies influence dialogue, course structure, and the degree of autonomy students may exercise. Therefore, there has been a growing need for research to examine this theory in contexts that include different technologies. Indeed, Transactional Distance Theory has been examined empirically by various researchers to ascertain its construct validity in the context of newer distance learning methods. I will provide my review of such studies and a description of the works as they relate directly to my study.

First, Moore's Transactional Distance Theory has been verified and elaborated on by Saba and Shearer (1994). Their research involved thirty students selected from a pool of graduate students. The students were taught a lesson via a desktop video conferencing system and all instructional interactions were recorded and classified. Saba and Sheerer

used discourse analysis to code speech acts based on specific categories, to define four of the key variables in the study (active, passive, direct, indirect), and to measure the rate and the level of all variables included in the study. The researchers used a system dynamics model first proposed by Saba (1988) to represent the relationship among the variables of student autonomy, structure, and dialogue. System dynamics is a technique for translating intuitive models into causal loop diagrams in which the effect of one system component on other components is clearly illustrated by positive or negative feedback loops (Roberts et al., 1983). This model assumes a systemic and dynamic relationship between dialogue and structure and suggests how a learner and a teacher can control the level of transactional distance by changing the rate of dialogue and structure. Saba found that an increase in the level of learner control increased the rate of dialogue, which in turn decreased the level of transactional distance. An increase in the level of instructor control increased the level of structure, which in turn increased the level of transactional distance. Saba discovered inverse relationships between the variables of structure and dialogue as well as between autonomy and structure. If the course was strictly structured, then the learner had less opportunity to communicate with the teacher and this created an increased awareness of transactional distance.

Saba and Sheerer (1994) verified Transactional Distance Theory and expanded on it. They proposed that the teacher and learner can control the transactional distance between them through controlling the structure and their dialogue. They also proposed that the relationship between the instructor and student is dynamic (i.e., it changes over time). As the student becomes more knowledgeable, and self-reliant, his/her need for autonomy might increase. Other students, on the contrary, might continue to require a

more structured approach to instruction, even as they become more competent in what they are learning. Therefore, there is no optimal transactional distance for all students because it varies for each student, subject, and instructional context. In order for successful learning to occur, both instructors and students should control this distance (Saba & Shearer, 1994; Saba, 2000). Later, Saba maintained that Transactional Distance Theory could be applied to various educational programs, including newly emerging types of programs. Saba (2005) stated:

> Transactional distance subsumes concepts that are based on physical attributes, such as electronics in e-Learning, blendedness in blended learning, and wired or wireless telecommunication in online learning. Furthermore the theory of transactional distance extends well beyond these lower level system components and includes fundamentals of psychology, sociology and education and other related areas of educational science (p. 4).

Moore's and Saba's conclusions have had important ramifications for the field of distance education and have provided a solid foundation for my study. Transactional Distance Theory is based on the interplay of three main elements identified by Moore: learner autonomy, program structure, and student-instructor dialogue. Both Moore and Saba have shown that these variables are very interconnected and affect each other a great deal. Moreover, if distance is a function of the responsiveness of an educational program to its students, then geographic proximity is not as important as the quality and amount of transaction between the learner and the instructor. Given a flexible structure, student-instructor dialogue will become very important in the development of learner autonomy, which is the very focus of this study. The ultimate instructional environment, therefore, will require maintaining a proper balance between dialogue and structure to minimize instructional distance.

In another study that has aimed to verify Moore's theory, Bischoff, Bisconer, Kooker, and Woods (1996) surveyed 221 students' perceptions of structure, dialogue, and transactional distance in a distance education course that was conducted through interactive television. Data were collected through a 68-item questionnaire that was administered once during the course. Items on the questionnaire were measured using a 5-point Likert scale. The researchers explored students' use of e-mail in the course and concluded that the use of e-mail increased dialogue and decreased transactional distance. They also found that the amount of structure the teacher provided increased or decreased the amount of the interaction between the students. Finally, they found that the students who were more adept at using technology felt less transactional distance than those who were not as comfortable with technology. The researchers concluded that the amount of structure the instructor provides and the levels of experience students have with technology plays an important role in the success of a distance education course. Bischoff et al. also stated that Moore's (1993) theory could be extended to any educational setting. Their results supported Moore's (1993) theory and showed that dialogue and transactional distance were inversely proportional: as dialogue increased, transactional distance decreased.

Despite the definite value of the study by Bischoff et al. and their confirmation of Transactional Distance Theory, this research was criticized by Gorsky & Caspi (2005) for several reasons. First, the dialogue was measured using one item only: the amount of teacher-learner dialogue. Second, such quantitative measures did not provide any insights about the qualitative aspects of the dialogue. The Bischoff et al. study, for instance, did not address whether learner understanding was achieved. Third, the definition of

transactional distance that was used in the questionnaire (perceived closeness or distance) differed completely from that used in Moore's theory, which focused on the understanding, or lack of it, that emerges from teacher/learner dialogue. Therefore, this study provided an interesting contribution into the field of DL, but more research that accounts for its limitations is needed.

Bunker, Gayol, Nti, and Reidell (1996) have also applied Moore's theory and examined the relationships between dialogue, structure, and learner autonomy. These factors were analyzed in an international context, in a distance education course that used audioconferencing. There were approximately 100 participants located in four countries (Estonia, Finland, Mexico and the United States) who were enrolled in a virtual class. In addition to audioconferencing, other technologies, including computer text conferencing, audio, graphics, print, and videoconferencing, were used in the course. The instructor changed the level of structure imposed on communication in the audioconferences and the researchers analyzed the resulting recorded dialogue using an analysis tool (MACS) developed by Cookson and Chang (1995). The structure was defined as the question-asking behavior of the instructor and the dialogue was measured by its frequency and duration. Transactional distance, autonomy, and learning outcomes were not assessed in this study. Bunker et al. used a quasi-experimental design and measured how four structural changes affected the amount and duration of dialogue between students separated by distance, language and culture. When the instructor changed the levels of structure both in the questions and in the amounts of time students were allowed to develop answers, the interaction either increased or decreased. The results supported Moore's (1993) theory and demonstrated that different types of question-asking behavior

increased or decreased dialogue. This study had some limitations, however, as it lacked reliability and validity, which was addressed by the researchers themselves. One experimental procedure was cancelled, and the instructor in a second procedure did not act according to the experimental design. Moreover, the instrument used in the study was not tested for reliability in audioconferencing and the durations of the samples were not equal. The authors themselves concluded that Transactional Distance Theory provided a useful basis for conference analysis but that their research indicated directions for further research more than it answered questions. Therefore, more research is definitely needed to provide valid conclusions for Transactional Distance Theory in this environment.

To empirically verify Transactional Distance Theory, Chen (1997) (as discussed in Chen & Willit, 1998) studied 121 learners in a videoconferencing environment. Chen studied factors that affect structure, dialogue, student autonomy, and transactional distance and examined the relationships among them. She identified factors that comprise dialogue, structure, student autonomy, and transactional distance and performed a path analysis to show the relationships among the variables. Chen and Willits (1998) found only limited support for the theory's premise that dialogue reduces transactional distance. They noted that the relation between dialogue and transactional distance depended on the type of the dialogue and the way that transactional distance was measured. They found that "various kinds of dialogue affected different types of perceived transactional distance rather than jointly contributing to a lessening of all types of transactional distance in video-conference" (p. 62). One limitation of the study was that the data could not directly transfer to asynchronous computer conferences, because many of the questions that were asked were specific to teleconferencing and to face-to-face instruction. Learners'

perceptions of transactional distance and learning outcomes were also measured only once during the course and could not demonstrate change over time. Moreover, learners' perceptions were not compared with actual learning outcomes.

In later studies, Chen (2001a, 2001b) utilized the context of web-based learning to examine the impact of individual and instructional variables on learners' perceived transactional distance. She involved seventy-five students and used questionnaires that measured students' perceptions of transactional distance on a scale ranging from extremely close to extremely distant. She concluded that high levels of one type of transactional distance did not necessarily imply high levels of other types. Chen suggested that other measures of transactional distance are needed. These measures should include qualitative measures, such as observations and interviews.

To analyze the applicability of Transactional Distance Theory through a grounded theory study, Hopper (2000) involved social work students in a program with two-way television as the communications medium at a small Midwestern American university. The researcher wanted to find out if learner characteristics and life circumstances had any effect on transactional distance, learner achievement, or satisfaction. The results indicated that the learner characteristics and life circumstances had an effect on their participation in the course but did not really affect their perception of transactional distance. Moreover, even when transactional distance was great, it did not seem to affect learner achievement or student satisfaction with the distance learning environment. This study, however, was limited by the small size of the group and this limitation was acknowledged by the author.

In yet another study utilizing Transactional Distance Theory, McBrien, L., Jones, P., and Cheng, N. (2009) analyzed distance by exploring different elements of Moore's (1993) theory. Specifically, they examined dialogue, structure, and learner autonomy through student responses to a survey about their experiences with the synchronous online learning platform Elluminate Live! Their findings suggested that dialogue was a very important factor online. Inclusion of the synchronous component allowed even shy students to feel more comfortable and supported the importance of the three forms of interactions (i.e., student-instructor, student-context and student-student) identified by Moore (1989). The researchers, however, found that some students responded well to clear, tight, and transparent structures, while some struggled with virtual classroom features that were used in a less structured way. McBrien et al., (2009) suggested that there is a need for clarity of understanding of what comprises a rigid or flexible structure.

Likewise, Force (2004) conducted a study wherein he collected quantitative data in order to analyze the relationships among the main variables of Moore's (1993) theory in the context of computer-mediated asynchronous conferences. This study also analyzed the relationships between transactional distance and students' learning outcomes. The participants were asked to complete a questionnaire to describe their perceptions of dialogue, course structure, transactional distance, and autonomy in their courses. The results of this study partially supported the relationships between the variables described in Moore's (1993) theory and were generally consistent with Moore's (1993) statement that dialogue, structure, autonomy, and transactional distance refer to clusters of variables. The results that were least consistent with Moore's theory came in the form of correlations that were too small to be statistically significant rather than of opposite sign.

There was a relatively high correlation between dialogue and transactional distance where high dialogue corresponded to a low transactional distance. Structure variables were separated into two groups, one of which seemed to be unrelated to transactional distance and the other showed positive correlations with it. On the one hand, autonomy and transactional distance, autonomy and structure, and structure and dialogue indicators were all significantly correlated. On the other hand, there was no significant correlation between transactional distance and student learning success. This study provided partial support to Moore's theory and further investigations including qualitative methods and data collection over time is needed.

In an attempt to relate research and practice in Internet-based instruction to distance education theory, Jung (2001), guided by Moore's (1993) Transactional Distance Theory, conducted a critical review of journal articles on web-based instruction. After reviewing fifty-eight articles from six international journals in distance education and educational technology, Jung found that many of the writers had only limited experience in distance education and that there were few examples of rigorous, theory-based research. Jung (2001) identified three aspects of dialogue recurrent in these studies: academic interaction between learners and instructors, collaborative interaction among learners, and interpersonal interaction between learners and instructors and among learners. Several articles emphasized the flexibility of web-based context. Jung suggested that his literature review raised questions to guide further research and reminded readers of the value of theory-based research in the development of an educational field. Jung also proposed that more work needed to be done for the development of existing theory.

Three studies discussed below (Bray, Aoki, & Dlugosh, 2008; Don, 2005; Dron, Siedel, & Litten, 2004) demonstrate how Transactional Distance Theory has been applied in the context of blended learning, in the cultural context of Japanese online distance education, and in the context of an FL online distance classroom. Dron et al. (2004) applied transactional distance to a blended learning environment. The researchers presented a case study that described the problems encountered during the design and implementation stages of a blended learning course that was taught largely online in a web-based context. They found that online dialogue played an important role. The design of the course allowed for high dialogue in accordance with Moore's (1993) theory. However, because of some unexpected behaviors exhibited by the educational institutions that took part in this course, the course reverted to a high-structure format during its implementation stage. This diminished the quality and quantity of dialogue. Dron et al. (2004) believed that because of the unexpected lack of the dialogue, students' experiences were somewhat disappointing and their retention was poor. As dialogue diminished, structure came to dominate. The more structured that the course became, the fewer opportunities for dialogue existed. According to the authors, this created a devastating effect on less autonomous students. Dron et al. (2004) suggest that Moore's (1993) theory could be applied to a blended environment. Even in the context of blended education where students had access to FTF communication, dialogue still played a vital role and its diminishment led to poor student retention. These conclusions need to be researched more and involve larger samples.

To apply Transactional Distance Theory in a different cultural context, Bray et al. (2008) analyzed predictors of learning satisfaction in a Japanese online distance

university. They surveyed 424 students to examine their opinions on student-instructor, student-student, and student-interface interactions and on autonomy. The questionnaire used in the study was developed by the researchers and had both closed and open-ended questions. The qualitative and quantitative data were merged together for the final analysis. The learner-content interaction was defined by the authors differently from Moore's (1993) definition of structure. Instead of rigidity or flexibility, the authors focused on the clarity of the course content. The results supported Moore's (1993) theory and demonstrated that highly structured programs that emphasize independent study attract more autonomous students. This study hinted that Transactional Distance Theory might be applicable in culturally different educational contexts and suggested further research to investigate this notion.

In another attempt to utilize Transactional Distance Theory in a new context of FL DL, Don (2005) applied Moore's (1993) theory to an online college-level Spanish classroom to investigate the main fundamental characteristics of online instruction. Her analysis applied the main principles of Moore's (1993) Transactional Distance Theory and the interactional dimensions from his theory of interactions. Don tested her research findings against these principles and collected data using two surveys: one given to educational experts and another given to students. The student survey was developed based on the information collected from the expert survey and was administered to the students taking online Spanish classes. The results of Don's study suggest that Moore's principles of interaction are applicable and compatible with online FL instruction. However, Don suggested that Transactional Distance Theory was not completely supported by her study. Don did not elaborate on this statement in depth. One can only

assume that her conclusions were based on her finding that both structural (clear instructions) and interactional (student-instructor and student-student dialogue) were chosen to be important by students online. Nevertheless, the study did not really measure the correlation between these two variables, nor did it include autonomy as one of the variables. The study was also based on the collection of the surveys at only one point during the semester. Therefore, I believe that adding correlation analyses, a qualitative stage, and measuring change over time would bring more clarity about whether Transactional Distance Theory is applicable in the FL DL context.

Conclusion

To summarize, my review of the works on Transactional Distance Theory provides some support to this theory, yet clarifies avenues for further research. The studies discussed above utilized several different research methods and procedures of data analysis. Some studies verified that the main variables of Transactional Distance Theory are related to each other as predicted by Moore. However, in some studies these predicted relationships failed to appear. Several studies looked at the relationships between some of the main variables of the theory, while others examined the influence of outside factors on those variables. Because of the variety of instructional contexts, study designs, media involved, the attention paid to different components of Moore's theory, and the lack of consistency in terminology, there remain numerous gaps to be filled in our understanding of Transactional Distance Theory. Inconsistency in definitions also makes it difficult to compare the results of the various studies and impedes the design of future studies. Moreover, because the main variables of dialogue, course structure, transactional distance, and student autonomy cannot be directly measured, researchers must select

indicator variables to represent them. It is almost impossible to understand whether such chosen indicators would be plausible or not as long as there is a lack of clarity in the definitions of the main theory variables.

Another problem that can be identified from these studies is that the majority of them involved subjective measures based on students' one-time perceptions obtained from one-time questionnaires, thus ignoring the change over time that might occur in the variables themselves as well as in their interrelationships. Another problem is that dialogue was often measured in terms of quantity, rather than quality. According to Moore's (1993) definitions, dialogue is *not* the number of verbal interactions. In fact, many authors recommended that future research include interview and observational data.

The studies above demonstrated that Transactional Distance Theory has provided a foundation for the study of distance education. Still, much more work must be done, including both qualitative and quantitative measures, to clarify the meanings of terms, the internal structures of theory variables, the relationships between them and their possible change over time. My study has been conceived and conducted to help address these problems and each following chapter has been informed by the lessons learned from my review of the literature.

Extension of Transactional Distance Theory in the SLA/ FL Context

In this section, I will review the reasons for the extension of Transactional Distance Theory into the FL DL context. Because of new developments in technology and increased demand for mobility and flexibility in learning, language learning online has risen dramatically in the past several years (White, 2009). Despite the fact that the

education profession has accepted DL as a viable context for learning FLs, the field still lacks a central theoretical framework (White, 2009). As a result, the development of FL DL courses has become more technology-led rather than theory-led (Ravenscroft, 2001). Specifically, the application of Moore's theory in the field of FL DL is almost non-existent M. Moore (personal communication, February 21, 2011). Therefore, because of the need for an organizing FL DL theory, I suggest that Transactional Distance Theory can be tested in this environment to determine whether indeed it is a "matrix theory within which all other theories can find root" (Moore & Kearsley, 1996). I believe that Moore's theory could be used as an umbrella framework for the various theories of SLA that deal with student-instructor interaction. Moreover, since there is no one central theory in FL or SLA that defines learner autonomy in distance education, I will show how Transactional Distance Theory incorporates various, and often opposing, views of autonomy that currently exist in the FL profession. In my description of current SLA and FL research, I have limited my discussion to works that are directly relevant to my study. I will conclude this section with my suggestions for how Transactional Distance Theory can be used as a framework for studying my research questions.

Autonomy in FL Research

There are a number of descriptions of autonomy, but the FL field still lacks a theory of autonomous language learning and even fails to provide a unified definition of this concept (Benson & Voller, 1997). Many FL scholars either follow a constructivist view of autonomy, which describes this construct as an individual quality, or view it through the social interactionist perspective, which emphasizes the social dimension of

autonomy. Transactional Distance Theory does not choose either dimension of autonomy but incorporates both predominant perspectives and unifies them in one theory.

The individual dimension of autonomy is based on the constructivist psychological theory, according to which people are constantly trying to make sense of the world around them based on their previous experience. "A person's processes are psychologically channelized by the ways in which he anticipates events" (Kelly 1955, p. 46). Kelly (1955) believed that we anticipate events by "construing their replications" (p. 50), which means that we give meaning to events through our interpretation of them. Each individual creates his or her meaning differently. Consequently, the learning process is individual and the constructs involved in this process, including autonomy, are also individual. One of the most frequently quoted definitions of learner autonomy that stems from this constructivist world view comes from Henri Holec (1979). In his paper "Autonomy and Foreign Language Learning," Holec defined autonomy as an "ability to have and to hold the responsibility for all the decisions concerning all aspects of this learning" (p. 3). He believed that such ability involves several decisions on the part of the learner, such as determining objectives, defining contents and progressions, selecting methods and techniques, monitoring the procedure of language acquisition, properly speaking (e.g., rhythm, time, place, etc.), and evaluating what has been acquired (Holec, 1979). The autonomous learner is capable of making all of the decisions about educational process and taking charge of his or her learning process (Benson, 2001; Holec, 1979). Dickinson (1995) also advocated an individualized view of autonomy and defined it as a "capacity for active, independent learning…. for critical reflection and decision making, as well as the skills necessary to carry out a self-directed learning

programme, i.e., the ability to define objectives, define content and so on" (p. 167). The autonomous learner in this set of definitions is a proactive member of the learning process, rather than a passive receiver of learning materials (Boud, 1988; Kohonen, 1992; Knowles, 1975). Holec (1979) also emphasized the importance of choice as a necessary means of autonomy development. He referred to individual choice, rather than to collective choice made by a group of students. According to the researcher, knowledge cannot simply be passed on from the teacher to the learner. Each learner observes and controls his or her own learning process and makes decisions (or choices) of what to learn. In order to facilitate such personalized learning process, there must be room in a course for freedom of choice for the individual as well as for groups of learners.

David Little (1991) brought a psychological dimension to the definition of learner autonomy. He believed that autonomy is "essentially a matter of the learner's psychological relation to the process and content of learning, a capacity for detachment, critical reflection, decision-making, and independent action" (Little, 1991, p.4). Little (2000, p 69) combined his older definition from 1991 with Holec's (1981) definition:

> Autonomy in language learning depends on the development and exercise of a capacity for detachment, critical reflection, decision making and independent action (see Little 1991, p. 4); autonomous learners assume responsibility for determining the purpose, content, rhythm and method of their learning, monitoring its progress and evaluating its outcomes (see Holec, 1981, p. 3).

The assumption here is that the ability to manage the learning experience depends on the underlying psychological capacities of the learner. From this perspective, Holec's (1981) definition described the implementation of autonomy rather than autonomy itself; his definition explained *what* autonomous learners are able to do but not *how* they are able to do it. Wenden (1991) saw learner autonomy as an educational goal and as a

learning process, or autonomous learning, not as a product. Autonomy, thus, is a developmental concept and a learner is constantly working toward it. The underlying belief here is that there are some things to be achieved by the learner, as well as some ways of achieving these things (La Ganza, 2004). Benson (2001) warned us, however, that a view of autonomy that shifts the focus from the internal experience to the process of learning has created a crisis of identity (p. 13) where autonomy is no longer seen as an individual capacity but as a learning process or situation (Benson, 2001; Dickinson, 1995). Benson (2001) maintained that such a definition of autonomy was not accurate, as it presumed that the "individualized self-directed learning" was a "sufficient condition" for autonomy (p. 13). Similar beliefs were exhibited in Hurd's (1998) work, who stated that "if learners are not trained for autonomy, no amount of surrounding them with resources will foster in them that capacity for active involvement and conscious choice, although it might appear to do so" (p. 72–3). White (1995) also supported this idea, stating that "a self-instruction context for learning does not automatically equate with learner autonomy, but autonomy may arise and develop within the learner as a response to the specific demands of a self-instruction context" (p. 209). The view of autonomy as an individual characteristic has brought many important insights to the field of FL DL but also has limited its understanding. It has negated the very nature of this construct, which includes a social dimension, as autonomy is only meaningful in relation to others (La Ganza, 2004).

The social view of autonomy is based on the Social Interactionism perspective, according to which we do not learn in isolation but through our interactions with others (Vygotsky, 1978). Vygotsky's *zone of proximal development* is the gap between what

learners can achieve on their own and what they can achieve in collaboration with others. Both Kohonen (1992) and Little (1996) considered the idea of collaborative learning through social interaction to be central for learner autonomy because it allows the development of reflective and analytic skills in learners. These abilities "depend on the internalization of a capacity to participate fully and critically in social interactions" (Little, 1996, p. 211). The origin of the view of autonomy as a social construct coincided with the wave of communicative language teaching in the 1980s (Breen & Candid, 1980; Canale & Swain, 1980; Widdowson, 1978). The followers of the communicative language movement emphasized the importance of interpersonal dimension in language learning and communication was placed at the heart of learning. The focus of language learning was on "the development of the learner's communicative knowledge in the context of personal and social development" (Breen & Candlin, 1980, p. 91). Canale and Swain (1980) introduced the concept of "meaningful communication" as a complement to linguistic knowledge and focused on "use, not usage" (p. 24). The shift to a learner-centered classroom placed importance on the teacher in the development of learners' autonomy. The teacher, in this perspective, played an important role in matching his/her strategies with the appropriate levels of autonomy of their students. Candy (1991) stated that learner autonomy "is not a single, unitary concept, but rather a continuum along which various instructional situations may be placed" (p. 205). Breen and Mann (1997) maintained that autonomy is a "way of being that has to be discovered or rediscovered" (p. 134). They saw the classroom as a "microcosm of the wider world in which the self relates to society" (p. 142). Teachers have an important role in this process, as developing awareness of language learning does not come naturally to most learners; it is the result

of conscious effort and practice and instruction. It is essential that an autonomous learner "is stimulated to evolve an awareness of the aims and processes of learning and is capable of critical reflection" (Dam, 1995, p. 2). Murphy (2005) argued that learners must be encouraged to enhance their capacities for reflection and self-direction; they should be given an explicit framework to guide their progress; and they must be provided a clear rationale, encouragement, support, and opportunity to practice within the course materials.

Collaboration with other students also becomes important in this social dimension of learner autonomy. Language skills are acquired with more success when learners participated in personally meaningful activities in the context of social interaction rather than received knowledge from the materials (Candlin & Byrnes, 1995). Thus, a foreign language is not "a subject to be absorbed but a symbolic medium through which knowledge about an arena of interest might be generated by the learner in society with others, through a focus on the constructive process of learning" (La Ganza, 2004, p. 24). Therefore, both teachers and student peers become an integral part in the process of the development of learner autonomy.

Besides independent and interactive dimensions of autonomy, interdependence is also viewed as a key ingredient of this complex construct. Little (2001) argued that autonomy in language learning develops through interaction and that the independence of a learner is built through interdependence. Breen and Candlin (1980) also described a teacher as an "interdependent participant" (p. 99). In opposition to Holec's individual sense of autonomy, Breen and Candlin (1980) emphasized the interdependence of the teacher and other learners as part of a communicative process where all parties "actively

share the responsibility for learning and teaching" (p. 99). Early Holec's (1979) and Little's (1991) definitions of autonomy were criticized by Hall and Beggs (1998) as being "asocial" (p. 27). They maintained that autonomy should be seen as an "internalised and individual state of mind." They noted that Holec's (1979) and Little's (1991) definitions did not address "the interactive nature of language learning" (p. 27) and did not include "the interdependence" that is at the core of language learning. Later, however, Little (1995) argued that learner autonomy depends on teacher autonomy. In order to foster learners' autonomy, teachers must exhibit it in themselves. Teachers and students use the same reflective and self-directing strategies for different goals: teachers, for managing their classrooms and students, for learning. Hence, teachers who wish to promote greater learner autonomy need to "start with themselves," and should reflect on their own beliefs, practices, experiences, and expectations of the teaching and learning situation (Little, 1995; Smith, 2001). Therefore, according to the interdependent perspective, learner autonomy is dependent on teacher autonomy and vice versa. As a social construct autonomy is seen as a result of interdependent relationships whereby both teachers and learners share responsibility for the learning process.

I believe that both approaches have a valid point, and I see autonomy in a holistic way: as both an individual and a social construct. According to La Ganza (2004), autonomy "arises from juxtaposed objectivistic and constructivistic notions of reality and knowledge" (p. 23). Autonomy is, thus, an individual systematic learner progression leading to competencies in learning (Holec, 1979), but it is also a subjective individual construction through social discourse (La Ganza, 2004). Using Ackermann's (1996) metaphor of learning process, which he described as "a dance between diving in and

stepping out" (p. 32), I can conclude that autonomy is a result of the personal reflection (stepping out) as well as of social interaction (diving in). Transactional Distance Theory does not include only one dimension of autonomy, but incorporates both social and individual aspects of this construct. All definitions of autonomy in FL described above fit well within Transactional Distance Theory. Therefore, it seems logical to try to extend this theory to the FL context and to utilize it in my study to answer research questions related to autonomy.

Dialogue in SLA Research

Another construct that is important for Transactional Distance Theory and my current study is dialogue. The definition of dialogue and interaction provided in Moore's theory can be used as an umbrella framework that incorporates diverse views from many interactionist theories of SLA. According to these theories, two-way interaction is critical for learning a second language (Pica, 1996) despite the different values given to the role of interaction in the learning of second language by the respective theorists. For instance, according to Krashen (1985, 1994), interaction should occur with a "comprehensible input" that provides understanding of meaning. Krashen (1985, 1994) believed that a one-way input in the second language must be both understandable and at a level that is just over the current linguistic competence of the learner. According to Krashen (1985), a second language is acquired unconsciously, like the first language. The prerequisite of this acquisition is the message that can be understood by the learner. Teachers can utilize various tactics to make this input more comprehensible, such as the use of visual aids, graphic organizers, and other strategies. However, despite its value for SLA, Krashen's theory has been criticized for its one-sided view of the language acquisition process.

Other SLA theorists have maintained that two-way communication is important (Pica, 1994; Long, 1985), while some SLA theorists have argued that conversational interaction is only vital when learners are engaged in meaningful interactions (Lightbrown & Spada, 1999). Pica (1994) believed that the meaning is negotiated through the process of a two-way communication, and defined negotiation as a "modification and restructuring that occurs when learners and their interlocutors anticipate, perceive, or experience difficulties in message comprehensibility" (p. 495). Other theorists have applied Vygotsy's (1962) socio-cultural theory believing that second language learners gain proficiency through their interactions with more advanced speakers. These advanced speakers can use scaffolding strategies (repetition, modeling, simplification) to provide support to learners that enable them to function within their zones of proximal development (Vygotsky, 1962). Many SLA researchers have agreed on the importance of the input but have viewed output as secondary. However, Swain (1995) in her "comprehensible output hypothesis" asserted that output is also critical and hypothesized that it serves four primary functions: to enhance fluency, to create awareness of language learning, to provide opportunities to experiment with language forms and structures, and to obtain feedback from others about language use. Comprehensible output allows learners to convey the meaning while at the same time challenges their linguistics skills. Swain believed that when a communication problem is encountered this urges the speaker to modify their input (Swain, 1995).

In summary, SLA theories of interaction have provided very important insights into the nature of language learning. However, these theories have been developed within the context of FTF learning. Moore's (1993) Transactional Distance Theory, on the other

hand, incorporates the types of interactions described by the SLA theorists, but also provides a framework for understanding interactions specific to FL DL. The dialogue in Moore's theory incorporates the two-way interactions described in SLA theories, while transactional distance measures learners' understanding. Therefore, it is feasible to assume that Transactional Distance Theory can be tested in the SLA and FL DL environments.

Critique of Transactional Distance Theory

White (2006) argued that "theory-building in distance language learning is still at an embryonic stage" (p. 247). She asserted that the lack of a unified theoretical framework made it difficult to inform and shape new practices. This has created a situation where the field of DL learning is more technology-led rather than theory-led (Laurillard, 2003). Therefore, it is crucial to conduct research framed within a theoretical framework. It is also important to test existing DL theories in the FL context trying to find a theory that can be central to the FL DL context. I chose the Transactional Distance Theory to frame my work, to test its validity in the FL context, and to suggest ways in which it can be enhanced. Several reasons led me to choose this theory over others. First, this theory directly deals with my main variables (i.e., autonomy and dialogue) unlike other theories of DL. Second, in comparison to other DL theories, Transactional Distance Theory can be seen as a matrix theory that incorporates other main theories of DL. Third, it has been empirically tested in various contexts and it has been shown to be adaptable to many DL environments, including web-based learning. However, most of the authors who conducted these studies recommended further research. Fourth, studies that have utilized this theory in the FL context are very scarce and it is vital to determine whether

Transactional Distance Theory can be applied to this unique environment. Finally, this theory combines and unifies various, at times opposite, definitions of autonomy and interaction that exist in the FL and SLA fields. Taking into account that neither FL nor SLA has developed a unified FL DL theory, Transactional Distance Theory seems the best alternative for advancing the current state of the FL DL field. To conclude, Transactional Distance Theory has provided the field of DL, as well as my own study, with a solid theoretical framework that contains a number of insights about two of my main variables, autonomy and dialogue. Although it has not been extensively tested in the FL context, it does contain many concepts that relate directly to my research questions and cannot be disregarded in my analysis. My review of the literature has provided many of the reasons why I believe that the application of Transactional Distance Theory in the FL context will be relevant for my study. However, more investigation of this is needed as I am aware of the limitations of this theory.

Several challenges described in the DL literature come with Transactional Distance Theory. I have decided to take into account these challenges in my study. First, Gorsky and Caspi (2009) critiqued Transactional Distance Theory for the lack of clear definitions of its main variables. In my analysis, I will utilize the definitions of autonomy and dialogue that FL and SLA literature have highlighted and will attempt to develop definitions of autonomy and dialogue that are more precise. I also realize that language learning from a distance has unique challenges. It is more problematic than acquiring knowledge in other subjects due to the lack of opportunity for interaction (Hurd, 2006). My findings may inspire an examination of other kinds of interaction necessary in FL DL and in a better understanding of how technology can support interactions in this context.

In addition, Gorsky and Caspi (2009) critiqued Moore's (1973) theory for its lack of linking his main variables with outcomes. They suggested that for an instructional theory to be powerful, it needs to link its main variables with either student satisfaction, attitudes toward discipline, or learner achievement. My study does precisely that; it links two variables of Transactional Distance Theory (i.e., autonomy and dialogue) with the outcome of student satisfaction. Moreover, research that has involved Transactional Distance Theory has mostly incorporated data collection at only one point in time in a given study. Therefore no conclusions could be made about how the variables developed over time and whether the relationships among them changed. My study involves four data collection points (two qualitative and two quantitative) to measure this change from the beginning until the end of the study and these are described in detail in Chapter III.

Finally, Gorsky and Caspi (2005) suggested adding qualitative methodology for testing Transactional Distance Theory. My study will utilize a mixed-methods approach, which Chapter III also describes in detail. By using mixed methods, I will incorporate qualitative research into what has been mainly quantitative work utilizing Moore's (1993) theory. I also realize that the context of FL might present unique challenges that can be explored in depth only by using a qualitative approach. As such, a consideration of another theory of autonomy that is based in FL DL context and that is founded on qualitative research can enrich and open other paths for my analysis.

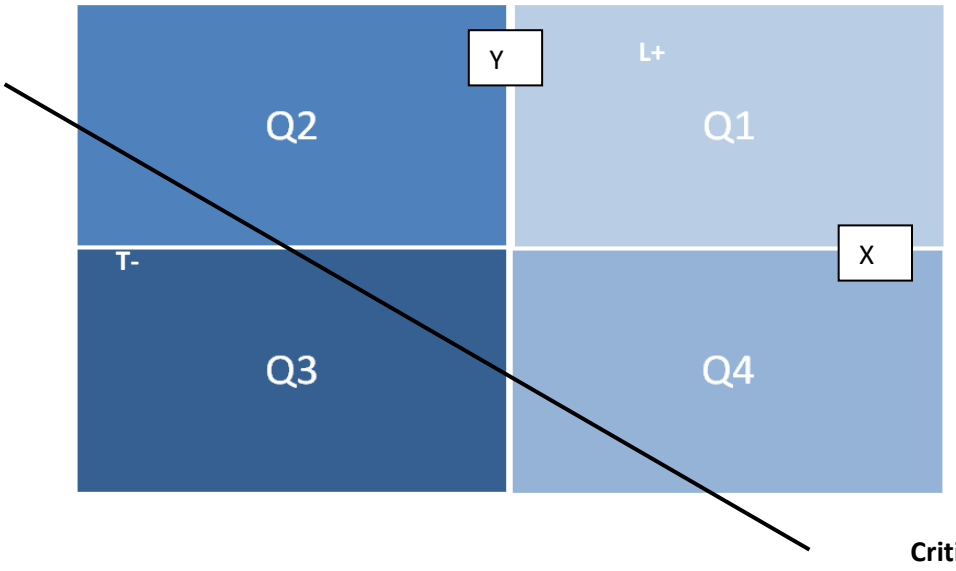
La Ganza's DIS Model

The theory of Dynamic Interrelational Space (DIS) (La Ganza, 2001, 2004) originated through an in-depth study that the author undertook analyzing students' and teachers' perceptions of learner autonomy the teacher-learner relationships. LaGanza's

theory views autonomy as a central variable. It also acknowledges the importance of interaction for the development of learner autonomy. However, it goes beyond individual and social views of autonomy and includes an emotional aspect of interaction introducing the concept of interrelating. La Ganza (2008) stated that "interrelating implies more than just reciprocal action, which is sometimes referred to in the literature as interaction; rather, it implies establishing association, connection, verbally and non-verbally: interrelating comprises an affective dimension" (p. 370). According to DIS, it is not sufficient to define learner autonomy as a learner taking control or taking responsibility but by the extent to which a learner can realize these achievements depends upon his or her relationship with the teacher. Therefore, learner autonomy is seen as an achievement, attained interrelationally, between learner and teacher. It depends on how learner and teacher relate to each other and whether they develop relationships that are conducive to developing learner autonomy.

The core features of DIS (see Figure 5) are the *dualities*, or sources of inner tension. These dualities (T+/T- and L+/L-) may be explained as states of tension that are perceived by teachers and learners. T+ signifies that the teacher is trying to influence the learning experience; T- denotes that the teacher resists from this influence. L+ indicates the learner's willingness to accept the teacher's influence; and L- signifies the learner's resistance to the teacher's influence and/or his/her desire to seek empowerment to influence the learning experience in some way. La Ganza (2001) described four interrelational climates, one for each quadrant (Q), or pairing of dualities. In quadrant 1, the teacher seeks to influence the learning experience and/or to assist the learner, while the learner accepts the teacher's influence or seeks the teacher's assistance. In quadrant 2,

the teacher is resistant as he/ she encourages the learner to initiate and define his/her work and learning experience. The learner here seeks the teacher's assistance concerning work to be done or some clarification of the learning experience.



X: teacher seeks influence T +/ resists influence T-/ *Y*: student seeks influence L +/ rejects influence L-

Q 1	T+ Teacher seeks to influence the learning experience and/ or to assist the learner. L + Learner accepts Teacher's influence on the learning experience and the assistance offered, or seeks Teachers' assistance
Q 2	T- Teacher resistant: encourages Learner to initiate and / or define his or her work and / or define the learning experience L + Learner seeks Teacher's assistance concerning work to be done or some clarification of the learning experience
Q 3	T- Teacher resistant: encourages/ allows Learner to initiate and/ or define his or her work and / or define the learning experience L- Learner seeks empowerment: indicates to Teacher that he or she would like to struggle alone to initiate and/or define his or her own work and/ or define the learning experience
Q 4	T+ Teacher seeks to influence the learning experience and/ or to assist the learner. L - Learner seeks empowerment: indicates to Teacher that he or she would like to struggle alone to initiate and/or define his or her own work and/ or define the learning experience

Figure 5. The Dynamic Interrelational Space Model

Source: La Ganza, W. (2004). Learner Autonomy in the Language Classroom. PhD dissertation, Macquarie University.

In quadrant 3, the teacher is resistant as he/she encourages or allows the learner to define his/her work and to define his/her learning experience. The learner here seeks to remain empowered and struggles to initiate and define his/her learning experience. In quadrant 4, the teacher seeks to influence the learning experience or to assist the learner in some way. The learner seeks empowerment and indicates to the teacher that he/she would like to continue to struggle alone in order to initiate and define his/her own work and learning experience.

La Ganza (2001, 2004) believed that the development of a learner's capacity to be autonomous mainly occurs in the Q3 interrelational climate. Such a climate is characterized by restraint and some discomfort on the part of the teacher. The learner here struggles in his/her learning process. The learner makes mistakes, experiences doubt and uncertainty, and resists appealing to the teacher for correct answers and solutions. Besides developing a capacity for resisting the influence of the teacher, the learner must also develop a capacity for persistence in using outside resources, as well as the teacher, for learning. The teacher, on the other hand, must develop a capacity for communicating to the learner and express to the learner that he/she is concerned for the student's well-being in this educational process. The teacher also needs to be able to cope with his or her own anxieties associated with facilitating the learning process, such as worry about "when or [when] not, and if so, how, to offer help to the learner should the learner not seek the teachers' influence" (La Ganza, 2008, p. 66). This model shows that a learner's capacity for development of autonomy can vary with different teachers depending on their interrelation. Therefore, La Ganza (2004) believed that learner autonomy is only

meaningful in the psycho-social context and only when the teacher and the learner interrelate. Hence, La Ganza (2001, 2004, 2008) saw the term *learner autonomy* as problematic because it only emphasizes one side of the dynamic relationship whereby the learner self-governs in isolation from external factors. "The paradox of learner autonomy is that the learner can be autonomous while in facilitating relationship with the teacher who is present externally, or, after satisfactory experiences of autonomy, internally" (La Ganza, 2008, p. 67). Therefore, La Ganza (2008) redefined the term learner autonomy as "the capacity of a learner to sustain a predominantly third quadrant interrelational climate in his or her experience- or a Q3 capacity" (p. 67).

Figure 5 shows a line going through quadrants 2 and 3 to quadrant 4. This line is the Critical In-Mind Boundary (CIB), which demonstrates the place where teacher-learner interrelating risks breaking down because of a lack of rigor. The CIB is a feature predominately of Q3 because in the other three interrelational climates either the teacher or the learner (or both) are seeking interrelation over the content, the structure, or other features of the learning experience. In Q3, both the teacher and the learner are resistant to interacting at the academic level (La Ganza, 2004). This situation may be difficult to maintain in a distance classroom wherein the teacher and the learner are physically far from each other. La Ganza believed that if the CIB is crossed, the online learner might feel isolated, while the teacher might also feel unsuccessful in fostering learner autonomy. The exact position of the Critical In-Mind Boundary (CIB) depends on each teacher-learner relationship. Usually, the teacher receives a sign from the student that the CIB is about to be crossed, and that their connection is breaking down. The teacher might feel a loss of touch, after which the learner might drop out without a word. Thus, the

relationship between the instructor and learner is effective within the CIB and breaks down beyond it. The role of the teacher is to maintain the CIB through a balanced student-instructor dialogue, which does not need to be verbal but must be affective. La Ganza (2004) suggested the following strategies for the instructor *to hold* the Q3 and to develop learner autonomy without crossing the CIB. In the contexts where teachers do not interfere with the learning process of their students, they need to show concern for their students. Interrelating, thus, includes more than the social presence described by Rourke, Anderson, Garrison, and Archer (1999) or e-moderating discussed by Salmon (2003), neither one of which includes the affective aspect of the teacher-learner dialogue that needs to be maintained. In order for the instructor to successfully foster the learner's autonomy, he or she must engage intellectually and emotionally with the student. This emotional investment will also allow the teacher to feel connected to the student while they are engaged in the construction of knowledge. Such *in-mind* student-teacher dialogue can be evidenced through various communicative exchanges, whereby the teacher shows his or her concern and the student accepts it. However, such in-mind interaction often is nonverbal, which is more complicated to maintain online. In the FTF classroom "the blink of a learner's eye can appear to signal a refusal of what a teacher was offering" (La Ganza, 2004, p. 365). In the online environment, student-instructor interaction can be interrupted by the student's sudden silence and lack of responsiveness. Such interaction involves both intellectual and emotional engagement that must be constantly maintained. Therefore, student-instructor dialogue is more than *interacting*; it is also *interrelating* (La Ganza, 2004).

La Ganza believes the teacher must be a perceptive resource, a participant observer, and a supporter of each learner's individuality in order to maintain the Q3 climate. As a *perceptive resource,* the teacher needs to invite consultation and welcome it when it occurs. He/she needs to provide meaningful help to the student's inquiries and reply to requests indicating that the learner's questions have priority in teacher's schedule. The instructor should also follow up on the situations that reflect any uncertainty. As a *participant-observer,* the instructor should use individual learning contracts and demonstrate genuine interest in what the learner might discover showing empathy for the learner. The instructor should also make an occasional discreet inquiry, reassuring the learner that he/ she is thinking about him/her. Being *supportive of each learner's individuality* means to encourage discussion on various topics and to seek the learner's opinions about the areas of his/her expertise and experience (La Ganza, 2004). Therefore, in order to create a successful learning environment online, the instructor must utilize various strategies for feedback and communicate with his/ her students. Through conscious maintenance of the student-instructor dialogue online, teachers can help their learners avoid feelings of isolation and, at the same time, promote autonomy. When the teacher's concern is communicated to learners, it is perceived by students as the teacher's presence (La Ganza, 2004). If, on the contrary, the teacher is not successful in transferring such concern in the online context, there is a risk of breaking the CIB, and, instead of empowerment and autonomy, the student and the teacher will feel isolated and unsuccessful.

To conclude, the DIS model of La Ganza (2004) originated from qualitative research in the context of FL DL. It provides an additional perspective, from which I will

conceptualize my study. Transactional Distance Theory presents a theoretical scope and DIS theory serves as a contextual filter, through which I will investigate students' perceptions of autonomy, student-instructor dialogue, and satisfaction. While these two theories make a good pairing for my theoretical framework and include my two independent variables of autonomy and dialogue, it is also necessary to discuss student satisfaction, a dependent variable in this study. The discussion below is devoted to the description of research on student satisfaction in web-based DL.

Student Satisfaction

It is important to note that one of the main critiques of Transactional Distance Theory concerns its lack of relating its main variables to outcomes. The literature on DL also emphasizes a great need to understand student perceptions in order to create the most effective learning environment (Areti, 2006; Biggs, 2006; Thiagarajan & Jacobs, 2001; Trinidad & Pearson, 2004). Distance learning is often criticized for its low retention rate. Therefore, it is crucial to understand the learner and determine what contributes to his or her satisfaction, as well as what detracts from it (Omoregie, 1997). My study examines the relationship between the two variables of autonomy and dialogue and the outcome of student satisfaction in a web-based classroom. Therefore, I will focus my discussion around student satisfaction studies that are relevant to my study, as they address the relationships between autonomy and satisfaction and between dialogue and satisfaction, comparing similar methodologies, theories, and instruments. Since the research on satisfaction is scarce in the FL DL environment, the works reviewed in this section come from the DL field.

Several studies investigated satisfaction using the same quantitative instrument that will be utilized in my present study. The relationships between autonomy, dialogue and satisfaction were studied by Burges (2006), whose research involved 237 undergraduate students enrolled in eighteen fully online courses. The researcher used the same instrument, the Distance Education Learning Environment Survey (DELES), that will be utilized in my study. This instrument was developed by Walker and Fraser (2004). The researcher also utilized Pearson correlation analysis to study the relationships among three main variables and multiple linear regression analysis to investigate the relationships different the scales of the DELES survey. Burges's (2006) results demonstrated that perceived autonomy and satisfaction showed significant correlation with the overall satisfaction with the course. This research also revealed that those students who reported higher levels of both autonomy and interaction were more satisfied with their online courses than those students who reported only higher levels of learner autonomy or interaction separately. This study provided important insights into the relationships between autonomy, dialogue and satisfaction. However, one limitation of this study was that it involved students who had already completed three or more courses by the time of the research. Therefore, the study might have dealt with students who already showed more favorable attitude towards online learning. The inclusion of students who were new to this environment and an examination of whether previous online experience had an effect on student satisfaction would have added to this research.

Next, we move to the work of Sahin (2006) who explored the relationship between student satisfaction and instructor support, student interaction and collaboration, personal relevance, authentic learning, active learning, and student autonomy. He also used

DELES to study satisfaction of 917 undergraduate DL students in various fields. Descriptive statistics and correlation analysis were used. Multiple linear regression analysis was utilized to determine the relationship between student satisfaction and instructor support, student interaction, collaboration, personal relevance, authentic learning, active learning, and student autonomy (i.e., the scales of the DELES instrument). Regression analysis revealed that four out of six scales of DELES, specifically, active learning, personal relevance, authentic learning, and instructor support, were positively and significantly related to student satisfaction. Therefore, the author concluded that instructor support, personal relevance, active learning, and authentic learning increase student satisfaction online. This study, despite its valuable findings, could benefit from the addition of qualitative data to explore the construct of student satisfaction in more depth.

Likewise, Bouras (2009) used the DELES instrument to assess satisfaction of fifty-eight graduate students enrolled in web-based distance programs. The study examined the effects of the presence of the instructor and the learner on student learning and student satisfaction. It incorporated a correlation research design whereby Spearman's rank correlation coefficient was calculated to show the magnitude of relationship between the variables. The relationship between instructor presence and learning was moderately strong. The scales of personal relevance, authentic learning, and active learning also showed moderately strong relationships. The enjoyment scale, related to perceived participant satisfaction, showed a moderately strong positive relationship to instructor presence and a slightly weaker relationship to learner presence. The author demonstrated

that there was a positive relationship between instructor and learner presence and perceived learning and satisfaction.

Watts (2010) is another researcher who explored the relationship between dialogue and satisfaction in a web-based DL environment based on the principles of Transactional Distance Theory. Through the use of phenomenological study, Watts (2010) explored perceptions of seven student participants enrolled in the online baccalaureate Radiologic Sciences program. She also selected five instructor participants from Radiologic Sciences and two from the English Department who taught online courses. The data collected from the students indicated that the majority of them wanted to be connected to their instructors and some wanted to be connected to their peers. The students stated that having focused interactions on the course discussion boards was important to learning, satisfaction, and feeling connected. The instructor interviews also disclosed that they wanted their students to feel connected to each other, to their instructors, and to the content. The instructors believed that this connection resulted in increased learning, increased satisfaction, and decreased transactional distance. They also suggested that the interactions between students led to personal and professional growth. This study supports the idea that dialogue is important for student satisfaction. The limited number of the participants, however, makes it impossible to generalize the results of this study.

In his dissertation, Bray (2007) examined student satisfaction of 424 online college-level DL Japanese students using a mixed-methods approach. The researcher developed a questionnaire from a preliminary open-ended questionnaire based predominantly on Moore's (1993) Transactional Distance Theory and his work on interaction (1989). The questionnaire aimed to measure five aspects of online learning, including student-teacher,

student-student, and student-computer interactions, course clarity, and student autonomy. Quantitative data revealed that older female students with previous DL experience were attracted the most to this educational context, as the convenience and flexibility of the DL courses fit their busy lifestyle. Qualitative data showed that the participants found online DL experience challenging because it was difficult to find time and self-motivate during the course. Students positively reflected on the clarity of the course content and assignments, computer use, and their abilities to work through the difficulties associated with the DL context. They expressed less favorable opinions about interaction with their teacher and with other students. Qualitative data supported quantitative results in that many students complained about the lack or difficulty of such interaction. A multiple regression analysis revealed that student satisfaction with learning was higher for those students who maintained high a level of motivation despite difficulties and feelings of isolation. These students were also comfortable with technology. They thought that the interaction with their instructors was easy, and they did not care for the interaction with others. Availability of both quantitative and qualitative data sources makes the findings of this study more powerful. However, the study did not address the change in student satisfaction that may happen throughout a course. An addition of another data collection point could have improved this research.

These studies have demonstrated that both qualitative and quantitative approaches are important for the exploration of such a complex concept as student satisfaction. The DELES instrument revealed that autonomy and dialogue are important for student satisfaction. Qualitative data explored the factors that influence student satisfaction online. It is important to investigate the issue of student satisfaction in a FL DL context.

My study will combine the strengths of the previous studies and account for their limitations.

Conclusion

In this literature review, I discussed how I framed my study by pairing theoretical and contextual models to guide my research. I discussed the most popular theories of DL and explained why I chose Moore's (1993) Transactional Distance Theory to be my main framework. After my analysis of the research that applied this theory in different contexts, I analyzed strengths and limitations of each work. The methodology of my own study, described in detail in Chapter III, has been developed to account for these limitations. I believe that the introduction of an additional framework, the DIS model of La Ganza (2004) that comes from qualitative research and was generated within the context of FL DL, will complement Transactional Distance Theory and will help enrich and expand it in the context of FL DL. These two frameworks shape my analysis and the presentation of my detailed findings in Chapters IV and V. The review of the research on student satisfaction in the web-based DL context has allowed me to view this study through the lens of students' perceptions and to connect the main variables of autonomy and dialogue with the outcome of student satisfaction.

CHAPTER III

METHODOLOGY

Research Methods

Exploration of such complex constructs as learner autonomy, student-instructor dialogue, and student satisfaction, requires a combination of research paradigms to achieve a deeper understanding of these phenomena. Therefore, the chosen methodology of the present study is mixed methods, which according to Johnson and Onwuegbuzie (2004) focuses on collecting, analyzing and mixing both qualitative and quantitative data in one study in order to obtain a better understanding of the reality. "Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration" (Johnson, Onwuegbuzie, & Turner, 2007).

It has been suggested that research questions should determine whether qualitative, quantitative, or mixed methods should be used (Bryman, 2006). The research questions should also specify the type of research design, the sampling procedures, the type of instruments, as well as the data analysis techniques used (Johnson, et al., 2007). Since my research deals with the complex constructs of learner autonomy, student-instructor dialogue, and student satisfaction, the very nature of each of these constructs calls for both quantitative and qualitative approaches.

According to La Ganza (2004), the construct of learner autonomy "arises from juxtaposed objectivistic and constructivistic notions of reality and knowledge" (p. 23).

On the one hand, this construct is developed systematically, as the learner progresses through observable developmental stages that are needed in order to reach competency (Holec, 1979). On the other hand, this progression is individual, as each learner creates his/her own personal understanding of reality and develops his/her own type of autonomy through social discourse and student-instructor dialogue (La Ganza, 2004). In recent years, the notion of interdependence (Breen & Mann 1997; Kenny 1993; Voller 1997) has arisen to describe the interrelational nature of the teaching/learning relationship, particularly with regard to learner autonomy in the language classroom. Based on social interactionism theory, we do not learn in isolation but through interactions with others (Kohonen, 1992; Vygotsky, 1978). Social interaction, therefore, is essential for developing autonomy (Little, 1996).

Autonomy is very closely connected with student-instructor dialogue and satisfaction. Dialogue is another construct that combines both objective and subjective dimensions. Objectively, it is possible to observe the type, the quality, and the frequency of the student-instructor dialogue. However, each student-instructor interaction is individual and changes not only from one student to another, but even from one class to another (La Ganza, 2004). Because of this, student satisfaction with a course can also vary from one course participant to another. Student satisfaction is yet another construct that is both objectivistic and individualistic. On the one hand, there are common trends in student satisfaction that can be captured by quantitative research and can be generalized. On the other hand, student satisfaction relates to the individual construction of reality by each student and needs to be explored using a qualitative approach.

In summary, the complexity and duality of the main constructs of this study require both qualitative and quantitative approaches for their exploration. The combination of both methods in a mixed-method research promises to reveal the depth and the breadth of these concepts. Qualitative analyses will allow me to explore individual students' perceptions, while quantitative analyses will allow me to draw broader generalizations.

Despite their seemingly opposing nature, qualitative and quantitative analyses complement each other in my study. According to *the incompatibility thesis* (Yanchar & Williams, 2006), quantitative and qualitative research are based on contradictory theoretical assumptions. Choosing one approach could appear to discard the other. However, Ercikan and Roth (2006) maintained that the nature of reality always contains both aspects. Grounded in the Soviet psychology of Vygotsky (1986), they stated that there is a unity of quantity and quality in the universe, which leads to the notion of a *concrete universal*, and that "each observation is simultaneously particular and universal, concrete and abstract, specific and general" (p. 15). This line of thought has led to what in mixed methods research is called a *contingency theory*, according to which both singular and multiple views of reality are needed under certain circumstances. Because my research questions deal with complex constructs of learner autonomy, student-instructor dialogue, and satisfaction, I combine deductive and inductive thinking by mixing qualitative and quantitative data in one study. I use both quantitative and qualitative data sources and multiple methods of data collection and analysis in order to answer my research questions. Specifically, I utilize the qualitative interview data derived from the first phase of data collection to inform the enhancement of the quantitative

survey instrument that I use in the second phase of the study. In doing so, the phase 2 quantitative survey addresses constructs that more accurately tell the story behind the development of learner autonomy, student-instructor dialogue, and satisfaction. In the third phase, I implement an additional quantitative survey to explore any changes that occur in my variables and their relationships over time. In the final and fourth phase, I again use qualitative interview data to promote a deeper understanding of any changes over time. A more detailed explanation of this particular research design is discussed in the section that follows.

Research Design

In order to answer the research questions posed by this study, I used an Exploratory Design with the elements of Explanatory Design (Creswell & Plano Clark, 2007). This sequential design starts with qualitative data to explore the constructs of autonomy, dialogue and satisfaction, and then builds to a second, quantitative phase (QUAL → quan) designed to test the themes that emerged in the interviews. An additional quantitative phase 3 is used to investigate the change in time that occurs in the main variables and in their relationships. The last qualitative phase 4 is added to explain the results of the quantitative phases and to compare students' perceptions at the end of the course with the beginning of the course. The qualitative part is given more weight in this study because it is conducted first to explore the main variables and to provide data for the instrument enhancement used in the second and third phases. I use the strategies of *initiation* and *development* to inform my analysis (Greene, Caracelli, & Graham, 1989). With development, I use the results from the first qualitative method to help inform the second quantitative method, and then again to inform the final qualitative

method. Moreover, with initiation I discover any paradox or contradiction that might exist between the two data sets that needs to be accounted for in my final analysis. My philosophy, therefore, is *dialectical*, as I intend to discover and analyze the tension between two approaches and understand their interaction.

There are several strengths to using the exploratory sequential research design. First, although this design emphasizes the qualitative aspect, it includes a quantitative component to add understanding and the ability to generalize my research findings. Second, a sequential research design is straightforward and easy to implement and report (Creswell & Plano Clark, 2007). Finally, using this design enables the researcher to study specific themes that may arise from the qualitative data and to better determine relationships between and among the main variables. Using such design to guide the present study has four distinct benefits. First, the qualitative data help provide an understanding of the participants' views of the DL environment, their autonomy, student-instructor dialogue, and satisfaction, while the quantitative data provide statistical results that allow me to explore the relationships that exist between these three variables. Next, through interviewing my participants in the initial, qualitative, phase of the study, I gain information about their satisfaction with the DL context and their autonomy, as well as student-instructor dialogue. These data allow me to enhance an instrument that may assess these variables in a more reliable way than if I were only to utilize previous research on learner autonomy, dialogue and satisfaction (Creswell & Plano Clark, 2007). In addition, by choosing different subjects and expanding the number of participants in the second and third quantitative phases of the study, I can argue for the generalizability

of my findings (Creswell & Plano Clark, 2007). Finally, my qualitative follow-up phase helps me better understand and qualify the findings of the previous quantitative phases.

Each phase of the research is conducted in chronological order and includes both data collection and data analysis for each data set. The sequence of phases of this study is represented visually in Figure 6. The mixed nature of the methodology is reflected throughout the study in my research questions, data sampling, data collection and analyses, as well as in my data interpretation (Tashakkori & Teddlie, 2003). I describe the results for each phase in detail in Chapter IV. I visually illustrate the relationships between various components of the study in Table 2 and describe them in detail in the following sections.

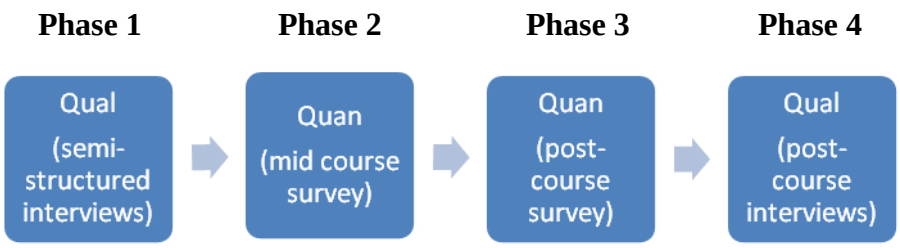


Figure 6. Four Phases of the Exploratory Design the Explanatory Elements

In conclusion, this study utilized an Exploratory Design with elements of Explanatory Design. It consists of four phases conducted sequentially. The first phase is a qualitative one that is designed to understand important factors of learner autonomy, student-instructor dialogue, and satisfaction and to enhance the existing quantitative instrument used in the subsequent phases two and three. Phase four explains the findings from the quantitative phases and provides insights into the changes that occur in time.

Table 2. Four Phases of the Study

PHASE 1 Procedures	**QUAL data collection Products**
purposeful stratified sampling, interviews n= 8	audiofiles
Procedures	**QUAL data analysis Products**
transcribe, theme analysis ATLAS.ti	transcribed texts, categories
Procedures	**QUAL results Products**
identify categories with supporting quotes	factors that relate to 3 main variables
Instrument Expansion	
expand DELES based on qualitative findings	table of evaluative items and supporting quotes
PHASE 2 Procedures	**quant data collection Products**
select a new sample (n= 37) administer new instrument	item scores
Procedures	**quan data analysis Products**
Correlation and reliability analysis	means, standard deviations, internal consistency, coefficients and p values, quotes describing themes
Procedures	**quan results Products**
report statistical results	Summary tables
Procedures	**qual data analysis Products**
identify categories with supporting quotes	factors that relate to main variables, compare w/ Phase 1
PHASE 3 Procedures	**quant data collection Products**
the same sample as in Phase 2 (n = 37) + 1 drop out, administer the instrument	item scores
Procedures	**Quant data analysis Products**
correlation analysis and reliability analysis, pair test	means, standard deviations, internal consistency, coefficients and p values, quotes describing themes
Procedures	**Quan results Products**
report statistical results	Summary tables
PHASE 4 Procedures	**qual data collection Products**
Same sample as in Phase 1 (n =6), interviews	transcriptions, categories

Integration of QUAL (quan) results

Procedures	**Products**
explore integrated findings, data transformation	**discussions**

Setting: Russian Web-based DL Programs

In order to find subjects for my study, I contacted the American Council of Teachers of Russian, the main national organization for Russian and other Slavic languages, and sent an inquiry email to 118 colleges that offer Russian as a FL. The email asked about the existence of Russian distance programs, the number of students enrolled, and whether they were interested in participating in educational research. I received ninety-two responses from these colleges and institutions, stating that such programs did not exist. I did not receive responses from nine colleges. Seven programs confirmed offering web-based DL Russian. However, among these programs only two were appropriate for this study. Three of them were more correspondence-like, did not have a synchronous component and had limited dialogue between the instructor and students. Since dialogue is one of my main variables, these programs were not a good match for my study. Two other programs had very few students enrolled, and one of them did not offer DL Russian at the time of my inquiry. The last two programs (referred to in my study as School 1 and School 2) were very alike in numerous ways. I was already familiar with School 1, as I taught Russian online at their institution. After my correspondence with School 2, I realized that both of these programs could be used in my study because they had similar duration and course structures, utilized the same learning platforms, used the same main textbook, and offered beginning Russian classes. The similarities between both programs are described in detail as follows:

- Both programs used Blackboard as their asynchronous platform and Wimba for their synchronous component;

- In both programs students met for two and a half hours per week with their instructors in a synchronous classroom. The rest of the week was conducted in an asynchronous manner;
- Both colleges utilized *Live from Russia* (Lekic, Davidson, & Gor, 2009) as their guiding textbook, and built online activities based on this book;
- Both institutions offered beginning Russian programs that followed a similar curriculum;
- In both programs courses started and ended at the same time of year and lasted for one semester.

The structure of the courses at both colleges can be described as semi-fluid. The courses had rigid sets of goals, pre-determined lengths, and pre-set linear progression throughout the courses. However, the online professors provided their students with various supplemental resources and utilized different media to accommodate individual learner's needs. The Wimba program allowed the students to interact with their professors and peers in Russian for a total of two and one-half hours per week. The main book for the course and the syllabus guided course progression. However, instructors developed interactive online tutorials, exercises and tests, as well as collaborative activities to supplement the textbook. For example, the students used the voice mail feature of Blackboard to post messages in Russian and reply to each other's posts in the target language. Interactive quizzes helped students practice difficult aspects of Russian grammar and enhance their vocabulary. Links to YouTube videos and other websites offered extra resources for learning and introduced authentic Russian TV programs and media to students. Interactions between students and the faculty outside of the classes

were mainly carried out asynchronously, through the Blackboard or email. These interactions were initiated both by the students, when they had questions or concerns, and by the instructors, when they guided student learning, set goals, or explained parts of an assignment. The students also participated in threaded discussions with their peers and collaborative presentations on various aspects of Russian culture. Such fluid student-instructor and student-student interaction was possible because of the features built into the Blackboard platform, including blogs, voice emails, voice authoring tools, and interactive quizzes that create personalized and engaging learning experiences. Wimba, a full-featured, synchronous, virtual classroom, allowed professors to upload presentations, share their desktops with the students, use audio, participate in real-time chat and video interactions, and record and archive their lectures for those who missed the class. The instructors were able to divide students into learning groups wherein the students practiced speaking Russian with their peers. Each participant was also able to write and to draw on the screen and to display their work to others. This was particularly helpful for the learning of the Cyrillic alphabet, enabling learners could mimic their teachers' writing. Moreover, the instructors utilized polling, an advanced feature, to regularly assess each learner's comprehension during the class. At any given moment the instructor could see how many students were present, who was participating, and who was disconnected from the program. The use of the instant messaging feature provided instructors with a powerful tool to help those students who struggled. When the instructors sensed that a student did not know the correct answer, they could send a hint or an example via individual chat to help the student avoid embarrassment. Since these features of Blackboard and Wimba were utilized on a regular basis by both School 1 and

School 2, it seemed plausible to combine these two programs together and to analyze whether different institutions would affect the results of the study. As we will see in Chapter IV, this program factor did not adversely affect the results.

Once the programs were chosen, I contacted program chairs in order to connect with the instructors. At this time, I realized that School 1 had enrolled high school students, who were getting college credits for their participation, in the same class with college students. Since the curriculum and the teacher were the same for both college and high school students at School 1, I decided to incorporate the high school students into my study. I took all measures to account for the age difference, which was not a significant factor in my study, as I will show in Chapter IV. However, the addition of the new group of students to the School 1 participant group did change my procedures for the consent process, which is described below.

Procedures for the Initial Contact and Obtaining Consent

In this section I will describe the process that I used for contacting my participants and collecting consent forms. I will also describe my target population and the sample used for this study. This project was reviewed and approved by The University of Iowa Institutional Review Board (IRB) for Human Subjects (Appendix A). I received a special approval for the consent process for minors (Appendix B) and another one for the instrument enhancement (Appendix C). Since there was only one Russian DL program at each institution, I contacted each instructor via email describing my project. In order to reach the high school students who were enrolled in college-level classes, I sent a descriptive email along with the consent forms to the school representative who attended each class and who contacted these students directly. The adult students responded

directly to my initial email and subsequently received consent forms (Appendix D). The minor students responded to the school representatives who provided them with all necessary consent forms. Consent forms informed each student that participation was voluntarily, that answers would be kept strictly confidential, and that data would be reported in such a manner that his/her identity would be strictly protected. The students were also informed that they could withdraw from the study at any time. The consent forms for the minors (Appendix E) were signed by both the student and their parent and returned to the primary investigator through the school representative. The subjects chose to participate either in the interview or in the surveys. One subject dropped out of the course before the completion of the study and was asked to complete the online DELES Withdrawal survey (see Appendix F). After I collected all the necessary forms and started preparing for my study, I paused to reflect on my role in this research to analyze any potential biases that I might have while approaching this study. I will discuss my personal involvement and acknowledge any potential bias in the next section.

Researcher's Role and Potential Bias

I have been teaching distance education courses since 2005 in various educational settings. Some courses that I have taught were more correspondence-like, while others were fully interactive. The subject matter of my online classes varied from general education courses to teaching Russian. I happened to have taught Russian at School 1, which is one of the schools that participated in my research. I was recruited to teach at this institution several months before my dissertation research began, therefore, I was very familiar with its curriculum and overall educational approach. In fact, at school 1 I developed two fully online courses using the Blackboard course management system,

enhanced with the Wimba component, for synchronous communication. Teaching Russian online and developing online courses for School 1 gave me a unique opportunity to understand some of the peculiarities of teaching Russian in a web-based DL context. I realize that this experience may have an effect on my study. However, the acknowledgement of my bias diminishes any potential negative effect as I consciously utilized various strategies to diminish this influence. I did not select my students to be a part of this research. All subjects for the study came from the classes of my colleague. Because of the online nature of the courses, I was physically removed from my subjects and had no personal interaction with them. The participants of this study are described in detail in the section below.

Participants

This study includes a total of forty-six students enrolled at School 1 and School 2. Thirty-four students were enrolled in the beginning Russian DL program at School 1, sixteen of whom were high school students taking college-level courses and eighteen of whom were adult college students. There were twelve students enrolled in the beginning Russian DL program at School 2, all of whom were adult college students. Table 3 demonstrates this division of the participants. The qualitative and quantitative phases involved different students in order to avoid sample contamination as was discussed earlier in this chapter. Table 4 demonstrates that in my qualitative Phase 1 there were eight participants, of whom six participated in Phase 4. There were thirty-eight different students who participated in Phase 2, of whom thirty-seven participated in Phase 3.

Table 3. Schools and Subgroups

Schools	Adult Students	Minor Students	Total
School 1	18	16	34
School 2	12		12
Total			46

Table 4. Participants of Each Phase

Phases	M	F	Total
Phase 1	4	4	8 (Ql)
Phase 2	19	19	38 (qn)
Phase 3	18	19	37 (qn)
Phase 4	4	2	6 (Ql)

To summarize, forty-six students participated in this research. Eight took part in the first qualitative phase. Six took part in the follow-up interviews at the end of the course. In the quantitative phases, thirty-eight students were part of the first quantitative survey, while thirty -even took the second survey. This way the subjects could not be influenced by the research method. The phases of the research are described in detail below.

Phase 1 Qualitative Interviews

Data Sources

In phase one, I use a purposeful stratified sampling technique to select eight subjects for the interview. These students had varying degrees of previous DL experience, ages and genders. Four male and four female students were chosen for this phase. Three had previous DL experience, and five did not have such experience. Three students were minors, and five were adult learners. Four students were from School 1, and four were from School 2. Table 5 shows the description of the participants for this stage.

Data Collection

The purpose of this phase of the study is to explore students' perceptions of their autonomy, student-instructor dialogue, and satisfaction (Strauss & Corbin, 1998). To achieve this goal, I conducted semi-structured interviews targeting three main variables and students' feelings about them. Through the semi-structured interviews, the participants of my study discussed their feelings about distance classes, discussed their perceptions about interacting with instructors online, and revealed their personal autonomy development.

I conducted the semi-structured interviews (Appendix G) during weeks three and four of the courses and explored student perceptions of student-instructor dialogue, autonomy, and satisfaction with the Russian distance course. The goal of this initial research phase was to explore the phenomena of student autonomy, student satisfaction, and student-instructor dialogue. The interview protocol was developed and tested in a pilot study during the summer preceding the research.

Table 5. Participants of the First Qualitative Phase

Participants	Gender	Age	Previous DL	School
Participant 1	M	20	yes	1
Participant 2	M	17	no	1
Participant 3	M	19	yes	2
Participant 4	M	50	yes	2
Participant 5	F	19	no	2
Participant 6	F	22	no	2
Participant 7	F	17	no	1
Participant 8	F	17	no	1

The development of the interview protocol was based on the model of responsive interviewing developed by H. Rubin and I. Rubin (2005). "Responsive interviewing is a dynamic and iterative process, not a set of tools applied mechanically. Qualitative research is not simply learning about a topic but also learning what is important to those being studied" (H. Rubin & I. Rubin, 2005, p. 15). This approach is based on interpretive-constructionist theory in which people are expected to see things somewhat

differently in multiple, even conflicting versions. According to the responsive interviewing model, both the interviewer and the interviewee are people with feelings, personalities, interests and experiences. They interact and influence each other. Thus, researchers need to be self-aware, constantly examining their own biases that might have influence on their interviewee. The goal of such responsive interviewing is a depth of understanding about what is being studied, rather than the breadth. This is achieved by thinking inductively, exploring the context, dealing with the complexity of multiple, overlapping, and sometimes conflicting themes, and paying attention to the specifics of meanings, situations and history (H. Rubin, & I. Rubin, 2005 p. 35).

According to this model, the researcher *is* the instrument, the tool of discovery. Hence, in order to get more depth, I often followed up with more questions to gain more information on what I initially heard. In my protocol I asked the students about their expectations of their teacher in the course and how they wanted to interrelate with him/her. I also asked them to reflect on their interactions with the instructor and to identify which features of these interactions were perceived as positive or negative. The students also depicted their ideal online instructor and reflected on his/ her role in the learning process. These questions allowed me to explore some characteristics of student autonomy and student-instructor dialogue that were not in my original quantitative instrument and later to add new questions to the original quantitative survey to capture these characteristics. This protocol helped guide the general direction of the interview. It allowed me to ask all of the important questions, but also to follow up with the students when it seemed that they had more to say about a specific theme. Audio files were created by recording each interview using a Free Sound Recorder program.

Rather than having a concrete limitation on the number of interviews, I collected data until *theoretical saturation* (Strauss & Corbin, 1998) was reached. In other words, I continued to interview participants until no new information emerged and the initial themes were repeated in subsequent interviews (Strauss & Corbin, 1998). Each interview lasted between thirty and fifty minutes and was conducted by Skype using audio function only. To ensure that ethical considerations were followed, at the beginning of the interview the participants were again informed of the purpose of the study, reminded that their participation was voluntary, and told that they could withdraw from the study at any moment.

Data Analysis

Since qualitative data analysis is an ongoing process that "occurs throughout the research" (H. Rubin, & I. Rubin, 2005), my data collection was also marked the beginning of my data analysis. In order to minimize my personal influence, I adhered to my interview protocol during the data collection stage and consistently went back to the data to confirm my interpretations during the data analysis stage. This reliance on the data helped me to avoid the personal bias that I might have had during this phase. Each interview was transcribed word for word, including sounds and sighs. I believe that even a single word or sound can be important, as it can indicate a relevant underlying emotion or attitude. I did not use any transcription software at this point in order to allow myself to react spontaneously to the data as I was transcribing. While reading through the data, I recorded my thoughts in the margins and highlighted new ideas that were not encountered in either the literature review or the pilot study (Richards, 2005). I also highlighted interesting phrases or statements, identified as *moments* by Barritt et al.

(1983). Moments are situations when either a phrase or a sentence catches the attention of the researcher and seems important for the concepts under investigation. Once I identified such a moment, I stopped and asked myself why it was interesting and recorded my answer. This process helped move my attention from the details of the recording to the concepts and then to the related abstraction (Richards, 2005). At this point, however, I did not try to find any connections with the concepts found in my literature review on autonomy, student-instructor dialogue and student satisfaction.

Once I transcribed all interviews, I printed them out along with my comments and created an initial set of three main master categories that corresponded to the three main variables of the study (i.e., autonomy, dialogue, and satisfaction). The entire data set was analyzed using these codes. Then, I used deductive codes (see Table 6) for data analysis.

Deductive analysis, according to Huberman and Miles (1998), works best when the researcher "has a good bank of applicable, well-delineated concepts" (p. 185). The deductive codes and their corresponding subcodes are based on the quantitative instrument categories and are shown in Table 6. Because these deductive codes were designed by Walker and Fraser (2004) to measure concepts in the area of learner autonomy, student-instructor dialogue, and satisfaction, I consider them to be interpretive rather than descriptive. Their DELES survey has been applied in the past to empirically verify Transactional Distance Theory (Bouras, 2009; Burgess, 2006; Sahin, 2006).

After I coded my data with these deductive codes I reread all transcripts and marked them with the inductive codes that were generated by the context itself. The initial inductive codes were developed using interview notes and from the comments that

I made while transcribing the data. There were many similarities between these two coding systems.

Table 6. Deductive Codes

Code	Subcode
1. Online Experience:	a. Availability b. Problem identification c. Timely response d. Detailed feedback e. Helpful feedback f. Encouragement g. Easy contact h. Provision of both positive and negative feedback
2. Collaboration	a. Working with others b. Relating c. Sharing d. Discussing e. Collaborating f. Required group work
3. Personal Relevance	a. Relation of class work to life b. Ability to pursue topics of interest c. Application of knowledge d. Ability to learn about the world
4. Authentic Learning	a. Study of real facts and cases
5. Active Learning	a. Exploration of self b. Finding answers c. Solving problems
6. Autonomy	a. Making decisions b. Working at one's own pace c. Control of learning d. Responsibility e. Metacognition
7. Distance Education	a. DL is stimulating b. DL is preferred c. DL is exciting d. DL is worthy e. DL is enjoying f. DL is desired g. DL is preferred for all classes h. This class is satisfying

Most of the codes were interpretive, meaning that they referred to what I thought students meant *between the lines*, rather than being a literal description of what was actually said (Richards, 2005). For example, when a student commented that it was important for the professor to be there for her students without constantly "being on their back" I marked it as *interrelation* and gave it a subcode of *CIB sensitivity*. In order to create truly interpretative codes, I applied several techniques of qualitative data analysis. For example, as I found something interesting, I used a strategy of *taking off from the data* (Richards, 2005 p. 70). When I discovered an intriguing phrase or a statement, I asked myself why it was interesting, and recorded my answer. I also applied an *opening up the data* (Richards, 2005 p. 71) tactic in which I interrogated each statement of interest, asking questions about its conditions, such as "under which condition does this happen?" or about its consequences, such as "what effects does this phrase have on the speaker?" or about strategies and interactions, such as "what does this statement mean for the speaker's strategies and interactions?" This helped me to establish truly interpretative categories and to avoid a long list of descriptive ones. I developed and changed my list of inductive codes as I read and reread my data. I realized that despite the fact that my pilot study was conducted using only ten participants, many of the same ideas emerged in my full study. Certainly, the findings from the pilot influenced the themes that I identified in my research in some ways.

For my final list of codes I combined the deductive codes based on DELES, described in Table 6, and the inductive codes that were developed from the context. I divided all codes into five *master codes* based on my three main variables, plus a code for isolation and a code for *other* that deals with issues important for distance learning but

that are not directly related to my main research questions. My *themes* represented broader attributes that related to each master code and that were identified in the literature as important. The *factors* level was based on the narrower subcodes that related to the themes and that were either identified in the literature review or that originated from my own data. Tables 7 through 11 visually demonstrate the entire coding hierarchy and indicate which codes come from deductive resources and which are developed inductively.

I went once more through the entire data to ensure proper coding of my data. If passages simultaneously belonged to different categories they were associated with multiple codes. The coding software was not used initially to avoid relying on the frequency of occurrence in my determination of the importance of a category. However, after I identified the most significant categories I calculated frequencies for each category.

Through this third examination of the transcripts, observing the data through both categorization and frequency, I wanted to "move up from the data to the concept" (Richards, 2005, p. 85). Despite the fact that my initial coding was already interpretive I wanted to make sure I observed the varieties and patterns within my main concepts. For this I needed to combine certain categories as common meanings emerged (Richards, 2005). I used this phase of coding to double check and confirm my categories. This third phase of coding was also utilized to increase the credibility of the qualitative findings described in detail in the following section.

Table 7. Final Coding System for Student-Instructor Dialogue

Master Code 1:	Student-Instructor Dialogue		
Theme	Interrelation	Communication	Transcendence of Cyber Space
Factors	CIS sensitivity (I) **43** Care (I) **47** Willingness to help (I) **48** Showing effort (I) 51 Showing genuine interest in the topic (I) **52** Regular Check (I) **45** Showing respect (I) **46**	Developing Rapport (I) **44** Availability (D) **1** Problem identification (D) **2** Timely response (D) **3** Detailed Response (D**) 5** Valuable feedback (D) **4** Encouragement (D) **6** Easy Contact (D) **7** Positive and Negative Feedback (D) **8** Development of pronunciation skills (I) **56**	Development of extra resources and opportunities for practice (I) **49** Use of a variety of media (I) **50** Creation of downloadable materials (I) **53** Use of video in **54** synchronous classroom (I) Organization of synchronous and asynchronous learning environment (I) **55**

(I)= inductive codes, (D) = deductive codes

Table 8. Final Coding System
for Autonomy

Master Code 2:	Autonomy	
Theme	Independence	Metacognition
Factors	Self-direction (I) **64** Responsibility (I) **63** Preference to work alone (I) **65** Making own decisions (D) **30** Working at one's own pace (D) **31** Control of learning (D) **32**	Metacognition (D) **34**

(I)= inductive codes, (D) = deductive codes

Table 9. Final Coding System
for Satisfaction

Master Code 3:	Satisfaction with DL		
Theme	Course Expectation	Learner Characteristics	Course Delivery
Factors	Pace (I) **57** Work Load (I) **58** DL worthiness (D) **38** Desire of DL (D) **36** Preference of DL for all classes (D) **41** DL is stimulating (D) **35** Excitement if DL (D) **37** Enjoinment of DL (D)**39** Satisfaction with DL (D) **42**	Emotional comfort (I) **59** Distractions/ multi-tasking (I) **60**	Technical problems (I) **61** Convenience and flexibility (I) **62**

(I)= inductive codes, (D) = deductive codes

Table 10. Final Coding System
for Isolation

Master Code 4:	Isolation	
Theme	Student - instructors , student -peers	Student - materials
Factors	Isolation from instructor and peers (I) **66**	Online course = self-study course (I) **67**

(I)= inductive codes, (D) = deductive codes

Table 11. Final Coding System
for "Other"

Master Code 5:	Other			
	Collaboration	Personal Relevance	Authentic Learning	Active Learning
	Working with others (D) Relating (D) Sharing (D) Discussing (D) Collaborating (D) Required group work (D)	Relation of class work to life (D) Ability to pursue topics of interest (D) Knowledge application (D) Ability to learn about the world (D)	Study of real facts and cases (D)	Exploration of self (D) Finding answers (D) Solving problems (D)

(I)= inductive codes, (D) = deductive codes

Credibility of the Qualitative Data

In a quantitative approach, validity comes from the strength of conclusions, inferences, or propositions. In a qualitative paradigm, the researcher is more concerned with the credibility of the findings. In other words, a qualitative study should give an accurate account of lived experience, and not merely a representation of it. Maxwell (1992) emphasizes four types of validity in qualitative research. *Descriptive validity* is accuracy in the documentation of the data. *Interpretive validity* is the extent to which an interpretation of data provides an accurate understanding of the perspectives and meanings of words and actions. *Theoretical validity* is the extent to which data and theory are consistent. *Evaluative validity* is the extent to which an evaluation framework can be applied to the study.

For descriptive validity, I double checked my recordings for accuracy during the transcription process. To ensure interpretative validity, I revisited the interview transcripts to ensure that the newly developed codes realistically reflected the data. Each code was checked to see if it corresponded to participants' actual statements. I changed some codes to be more precise after reflecting on the nature of the statements and then combined or eliminated those codes that were not supported by the data (H. Rubin & I. Rubin, 2005). I also involved two professionals in the field of FL to check and verify the codes that I developed. This *peer audit* (Anfara Jr., Brown, & Mangione, 2002) helped me to create a more accurate interpretation of the data. I compared my codes with those of my colleagues and we discussed our reasons for each code. I chose the codes that overlapped, and we analyzed any discrepancies that were found. This process also helped

me guarantee evaluative validity (i.e., to describe and understand the data without being evaluative or judgmental) as two other professionals verified my conclusions. To ensure theoretical validity, I connected each code to a theme in the literature in the field of DL and FL learning. I identified the main themes within the variables under study, and factors that related to each theme. I eliminated those codes that received no attention in the literature and whose frequency was very low. Those codes that were unique to my study, but whose frequency was high were added to the list of the main categories. These categories helped me to develop questions that were added to the existing DELES instrument in order to enhance it. The question formation process is described in the following section.

Question Formation Process

My question formation process was based on DeVellis' (2003) scale development guidelines. De Vellis (2003) recommended utilizing existing, reliable scales in determining the format of the measurement. My enhanced survey is composed mostly of the original DELES, which includes seven reliable scales and are described in detail in the sections below. Each of the scales of the original DELES have been determined to have properly weighted items and successful response formats. DeVellis also recommended that when developing your own scale, it is important to have the initial item pool reviewed by experts to "confirm or invalidate your definition of the phenomenon" (DeVellis, 2003, p. 86). According to DeVellis (2003), "this is especially useful if you are developing a measure that will consist of separate scales to measure multiple constructs" (p. 86). As DeVellis (2003) stated, experts should have little trouble determining which scale items correspond to which constructs. Following this advice, I

sent a completed draft of the survey to three colleagues and asked them to rate each item in terms of its relevance to the phenomenon that I was attempting to measure. These experts reviewed my survey and identified it as being clear and highly relevant to the phenomenon and specific constructs that I planned to measure. With this confirmation of my instrument, I chose to move forward with the next portion of my research. The following section describes my next step, i.e., instrument expansion.

Instrument Expansion

This section discusses the results of my Phase 1 qualitative interviews, which were used to explore the constructs of student autonomy, student-instructor dialogue, and satisfaction. The themes that emerged during this phase expanded the existing DELES instrument. Eight students participated in Phase 1 (see Table 5). There were four male and four female students. Four students were from School 1, and four students were from School 2. Three students had previous DL experience, and five did not have such experience. There were three minor and five adult students. These students participated in semi-structured interviews (Appendix F), which asked questions about students' views of the DL environment, interactions with their instructors, and their autonomy. I divided all of the themes that emerged from these qualitative interviews into two groups: those that confirmed the factors already present in DELES, and those that expanded on those factors. I used the latter group to create additional questions that were added to the original instrument. The support for these themes is provided in detail in my Chapter IV.

Dimensions of Learner Autonomy

My qualitative interviews included questions that were designed to assess the issue of autonomy, one of the main variables in my study. Multiple dimensions of

autonomy, such as *interaction*, *interdependence* and *interrelation* were reflected in the variable of student-instructor dialogue. In this section I will discuss the characteristics of autonomy that are related to the *independence* theme. This dimension of autonomy is based on the constructivist psychological theory (Kelly, 1952) that saw autonomy as an individual learner characteristic (Benson, 2001; Holec, 1979; Little, 2001). The autonomous learner in this set of definitions is a proactive member of the learning process rather than a passive receiver of learning materials (Boud, 1988; Kohonen, 1992; Knowles, 1975). There were seven themes that emerged in the process of defining student autonomy. Those that were confirmatory of the DELES factors included: *control of learning*, *making own decisions*, *working at one's own pace*, and *metacognitive awareness* (Benson, 2001; Dickinson, 1995; Holec, 1979; Van Lier, 1996). Those that are new to the survey are: *responsibility*, *self-direction*, and *preference to work alone* (Holec, 1979; Little, 1991). *Isolation* was an additional theme that was somewhat related to autonomy (Hara & Kling 2000; Northrup 2000) but that will not be included in the autonomy scale. Table 12 reflects these themes and will be followed by a brief discussion of each of them.

Table 12. Confirmatory and Expansion Themes for Autonomy

Confirmatory themes	**Expansion themes**
Control of learning Making own decisions Working at one's own pace Matacognitive awareness	Responsibility Self-direction Preference to work alone Isolation*

*isolation is related to autonomy, but is added outside of the autonomy scale

Confirmatory Themes for Autonomy: The themes that emerged from the first qualitative phase and that confirm DELES survey have been supported by the literature on FL autonomy. It seems that much of a learner's autonomy stems from a learner's ability to exercise *control of learning* (Benson, 2001; Dickinson, 1995; Holec, 1979). Students reported feeling in control and saw themselves as active members of the online community. *Making* [their] *own decisions* about what, when, and how to learn (Holec, 1979; Benson, 2001) as well as students' *metacognitive awareness* (Benson, 2001; Little, 1991; Van Lier, 1996) also related to autonomy and allowed students to progress through the course despite their separation from others. These dimensions of learner autonomy enabled students to enroll in courses not offered locally and to continue full-time jobs and full-time studies without interrupting their lives.

Expansion Themes for Autonomy: Four themes that emerged in the qualitative interviews were new to DELES and, thus, were added to the expanded instrument. The first is the theme of *responsibility*. As was stated in Chapter II, *responsibility* is one of the major attributes of autonomy (Holec, 1979; Little, 2001) and was often cited as a goal of autonomous learning (Wenden, 1998). Many teachers agree that learners are not just passive recipients of knowledge but are active participants in courses (Boud, 1988; Knowles, 1975; Kohonen, 1992). However, it is important that learners themselves realize their role in the learning process. Their ability to take responsibility for their attitude, their actions, and the results of their studies is an important feature of autonomous learners (Holec, 1979; Little, 2001). Closely connected to the idea of responsibility is the theme of *self-direction.* This is considered an important characteristic of autonomy in the FL literature (Candy, 1991; Dickinson, 1995; Schunk & Zimmerman,

1998; Wenden, 2001; White, 1999) and seems to be very significant for the students in my study. *Preference to work alone* (Little, 1991) is another expansion theme that was confirmed by several students and echoed the "capacity for detachment" introduced by Little (1991, p. 4). Similarly, students in this study confessed that, despite their occasional feelings of *isolation,* they liked to learn on their own. *Isolation* was another theme that emerged from my discussion of autonomy and was new to the DELES instrument. Although *isolation* is closely related to autonomy, the FL literature does not include it as a dimension of autonomy. Even though it is possible to be autonomous and isolated at the same time, isolation may cause disengagement and withdrawal (Hara & Kling 2000; Northrup 2000), while autonomy often leads to success (Wenden, 1991). *Isolation* can be seen as a part of autonomy (Little, 1991) or as a construct opposite to autonomy (La Ganza, 2001, 2004). Because *isolation* was a major theme identified in my qualitative phase and because FL and DL research suggests that it is important in the development of student autonomy, I decided to include questions that relate to this category but to place them outside of the scale of autonomy. To conclude, new themes of *responsibility* (Holec, 1979), *self-direction* (Dickinson, 1995; Candy, 1991), *preference to work alone* (Little, 1991) and *isolation* (Hara & Kling 2000; La Ganza, 2001, 2004; Little, 1991; Northrup 2000) emerged from my qualitative analysis in the first phase. Because of the importance of these factors for my participants and because the FL literature has regarded these concepts as important components of autonomy, I have included them in my enhanced survey. Table 13 lists the questions that have been developed for the scale of autonomy in the enhanced DELES instrument.

Table 13. Question Formation Process
for Autonomy Scale

Category	Theme	Q#	Question
Independence	Responsibility	63	I take responsibility for my learning
Independence	Self-direction, self-motivation	64	I am self-motivated
Independence	Independence Preference to work alone	65	I like working on my own
Isolation			
	Isolation from professor and peers	66	I feel isolated from my professor and from my peers
Connection with materials	DL = a self-study course	67	This course is like a self-study, correspondence course

Dimensions of Student-Instructor Dialogue

The qualitative interviews from Phase 1 confirm that the instructor plays an important role in the online environment, and student-instructor dialogue seems to be crucial for student satisfaction (Moore, 1993; Saba, 1999; Stone, 1990; Young, 2006). Although many students preferred traditional FTF meetings, interactivity was very important for these DL learners (Stone, 1990). There were two confirmatory themes: detailed, timely, and individualized *feedback* (Gibbs et al., 2003; Lyster & Ranta, 1997; Oscoz, 2009) and the *availability and accessibility of the teacher* (Berge, 1999; Bolliger & Martindale, 2004; DeBourgh, 2003). Qualitative interviews revealed fourteen themes that seem to be important for dialogue and that are new to the instrument. These are: *developing rapport* (Herring & Smaldino, 1997; Lim and Cheah, 2003; Simonson &

Russo-Converso, 2001), *developing communicative skills* (Lamy 2004; Osuna & Meskill, 1998), *critical in-mind boundary maintenance* (La Ganza, 2001, 2004), *showing care, showing respect, willingness to help, showing effort, showing genuine interest* in the topic, *regular check-up* (La Ganza, 2001, 2004), *development of extra resources* (Osuna & Meskill, 1998), *use of a variety of media* (Johnson & Howell, 2005), *creation of downloadable materials* (Kaminski & Rezabek, 2000), *use of video* (Gorsmire, Morrison, & Van Osdel, 2009) in a synchronous classroom and *creating organized classroom* (DeBourgh, 2003; Rangecroft, 1998; Thurmond, 2002). Table 14 visually charts these themes.

Confirmatory themes for Dialogue: One of the most important factors in the communication category that confirms DELES was the necessity of detailed, timely, individualized *feedback* that encourages and provides guidance as well as points out mistakes (Gibbs et al., 2003; Lyster & Ranta, 1997; Oscoz, 2009).

The importance of *feedback* online is not a new concept (Northrup, 2002; Thurmond, Wambach, & Conners, 2002). *Feedback* is important in any educational setting since students need to receive responses on their progress and performance (Berge, 1999). In a distance setting, because of the lack of visual signs from teachers confirming that the learning progress is adequate, learners rely heavily on teacher-student interaction (Billings, 2000; Thurmond, et. al., 2002). Another confirmatory theme is the *accessibility and availability of* [the] *teacher* (Berge, 1999; Bolliger & Martindale, 2004; DeBourgh, 2003; Rangecroft, 1998; Thurmond, et al., 2002). The students in this study believed that it should be easy to contact their teachers and that teachers should be there for them when needed.

Table 14. Confirmatory and Expansion
Themes for Dialogue

Categories	Confirmatory	Expansion
Communication	Feedback Accessibility/availability of teacher	Developing rapport Developing communicative skills
Interrelation		CIB maintenance Showing care Showing respect Willingness to help Showing effort Showing genuine interest Regular check-up
Transcendence of cyberspace		Development of extra resources Use of a variety of media Creation of downloadable materials Use of video Creating organized classroom

Expansion Themes for Dialogue: *Developing rapport* (Herring & Smaldino, 1997; Lim and Cheah, 2003; Simonson & Russo-Converso, 2001) was seen by students as an important feature of the communication category. In the interviews, students expressed their desire for interaction and believed that personal communication with their instructors could make them feel more involved in the classes and less isolated. Students also emphasized the importance of *developing communicative skills* (Lamy 2004; Osuna & Meskill, 1998) in Russian and expressed their need for communicating in the target language during their classes.

Five expansion themes echoed items identified by La Ganza's (2001, 2004) Dynamic Interrelational Space (DIS) model. For example, students emphasized the importance of *critical in-mind boundary maintenance* (La Ganza, 2001, 2004), which

means they wanted the teachers to balance their ability to help their students, with their ability to resist helping and leaving their students to struggle on their own when needed (La Ganza, 2001, 2004). According to La Ganza (2001, 2004), in order to maintain a connection with their students while resisting the urge to influence their academic progression, teachers need to utilize various strategies. Thus, six more themes that emerged from my interviews and expanded the original DELES are similar to strategies identified by La Ganza (2001, 2004). They include *showing care, showing respect,* demonstrating *willingness to help, showing effort, showing genuine interest,* and *regular check-up.*

Another new category that emerged from my qualitative interviews is *transcendence of cyberspace*. This category relates to structure, the third element of Transactional Distance Theory that was omitted in this study. Despite this omission, structural elements appeared in students' discussion of dialogue. Such emergence of structure through dialogue supports Moore's (1993) theory which is based on the three variables of autonomy, dialogue and structure. The themes that I have identified in this category echo the findings of Pascarella and Terenzini (2005) who suggested that, because of the lack of natural conversations in web-based DL classrooms, online teachers need to implement strategies that encourage student-instructor dialogue. My interviews also support the findings of Hansson and Wenno (2005) who maintained that distance teachers need to develop strategies to compensate for deficiencies that are typical for web-based programs. Students in Phase 1 mentioned several strategies that could be utilized by their teachers for *transcendence of cyberspace* and diminish the distance in online language classrooms. The following themes emerged from my interviews and

expand the original DELES. Learners believed that the *development of extra resources* (Okuna & Meskill, 1998) and more opportunities for learning could help offset the lack of practice during many synchronous classes. The *use of a variety of media* (Okuna & Meskill, 1998) could also help students who have various learning styles and help them find activities that are more appealing. This echoes Johnson and Howell's (2005) study, which found that when students used a variety of technologies, they reported positive attitude changes towards technology and the class. My interviews identified another theme, the *creation of downloadable materials* (Kaminski & Rezabek, 2000), that seems to make learning more convenient and more similar to traditional environments. The students also suggested that the teachers' *use of video* (Gorsmire, et al., 2009) during synchronous classes enabled them to easily mimic their teachers' pronunciation, understand their facial expressions, and feel more connected. Students also admitted that *creating organized classrooms* (DeBourgh, 2003; Rangecroft, 1998; Thurmond, 2002) prevented them from feeling lost in cyberspace. All of these strategies, or themes, seem to be able to offset shortcomings that may arise in the online context because of physical distance and, therefore, enable students' *transcendence of cyberspace*. Table 15 lists the questions formed in the scale of dialogue that were added to DELES instrument.

Dimensions of Student Satisfaction with DL

My final set of questions in the qualitative interview protocol was designed to explore the third variable under study (i.e., student satisfaction). The original DELES instrument has a well-developed scale of questions that deal with student satisfaction (questions 35-42). Some of these features are confirmatory in my study, such as

worthiness of DL, *view of DL as enjoyable, exciting, stimulating, and satisfying*, and *preference of DL for other classes* (Hiltz, 1993; Navarro, 2000).

Table 15. Question Formation Process
for Dialogue Scale

Category	Theme	#	Question
Interrelation	CIS- sensitivity	43	My teacher knows when to help and when to respect my independence
Communication	Interaction with students	44	I have a lot of personal interaction with my teacher
Interrelation:	Showing care:	47	My teacher cares about me
Interrelation:	Willingness to help	48	My teacher is willing to help me when I have a problem
Transcendence of cyber space	Development of extra resources and extra opportunities for practice	49	My teacher provides extra resources and extra opportunities for practice
Transcendence of cyber space	Use of a variety of media	50	My teacher uses a variety of media
Interrelation:	Showing effort	51	My teacher puts in a lot of effort
Interrelation:	Showing genuine interest for the topic	52	My teacher shows genuine interest in the topic
Transcendence of cyber space	Creation of downloadable materials	53	My teacher creates downloadable materials
Transcendence of cyber space	Use of video in a synchronous classroom	54	My teacher uses video while teaching a live course
Transcendence of cyber space	Organization	55	My teacher creates an organized online course
Communication	Development of pronunciation and communication skills	56	My teacher works on our pronunciation and communication skills

The new themes that were not part of DELES but that emerged from my data are *workload, pace (*Bowman, 2001; Burnett, 2004; Cahill & Catanzaro, 1997; Spangle et al., 2004), *emotional comfort* (Bolliger & Martindale, 2004; Burnett, 2001; Warschauer, 1998), *distraction, technical problems* (Bolliger & Martindale, 2004), *and convenience and flexibility* (Burnett, 2004; Spangle, et al., 2002). Table 16 shows the confirmatory and expansion themes.

Table 16. Confirmatory and Expansion Themes for Satisfaction

Confirmatory Themes	**Expansion Themes**
Worthiness of DL View of DL as enjoyable View of DL as exciting View of DL as stimulating View of DL as satisfying Preference of DL for other classes	Workload Pace Emotional comfort Distraction Technical problems Convenience and flexibility

Confirmatory Themes for Satisfaction: In my interviews, learners in general reported positive attitudes towards distance learning. They believed that DL is *worthy* of their time and describe it as an *enjoyable*, *exciting*, *stimulating* and *satisfying* environment (Hiltz, 1993; Navarro, 2000). Many students admitted that studying online increased their self-image and positively affected their reputation among their peers. Several participants even commented on favoring DL over more traditional forms of education and admitted their *preference of DL for other classes* as they enjoyed studying

at their own pace and at times of their own choosing (G.M. Johnson & J.A. Johnson, 2006; Sole & Lindquist, 2001)

Expansion Themes for Satisfaction: My qualitative data also reveal several additional factors related to this variable that are not included in the original instrument, but that I feel are important to add to my survey. Students discussed *pace* and *work load* (Bowman, 2001; Burnett, 2004; Spangle et al., 2004) in the online environment at length. They believed that the pace of online instruction seemed to be much faster than that in an FTF classroom. They also admitted that they had been unaware of the amount of work that was required in a DL classroom (Bowman, 2001; Burnett, 2004; Spangle et al., 2004).

My participants agreed that the DL environment brings *emotional comfort.* Since the risk of being put on the spot is lower online than in traditional classrooms, many introverted students seemed to flourish in this educational context (Burnett, 2001; Bolliger & Martindale, 2004; Warschauer, 1998). Extroverts also seemed to enjoy the opportunities for the online interactions offered by web-based classes (Daughenbaugh & Ensminger, 2003; Kelly & Schorger, 2002). However, the availability of other technological resources (e.g., Facebook, email and other websites) during their synchronous and asynchronous studies seemed to create distractions for my participants. Therefore, the theme of *distractions* is also an expansion theme included in the enhanced DELES instrument. All students believed that *convenience and flexibility* of the online context (Burnett, 2004; Spangle, et al., 2002) was their favorite characteristic of this educational environment. Flexibility implies that students can take the asynchronous parts of the course at their preferred time and place. With an Internet connection, course

materials can be accessed online from any place. Such conveniences of online distance learning were welcomed by students, especially by those who worked or traveled (Buckley, 2003; Spangle et al., 2004). At the same time, *technical problems* became an important theme that students talked about in depth. DL research has shown that no matter how well a program is designed, there seem to be inevitable technical glitches caused by servers, incompatibility of software, or the lack of students' technical knowledge (Bolliger & Martindale, 2004). This was also the case with my participants who experienced *technical problems*, which led many of them to experience anxiety and frustration (Bolliger & Martindale, 2004). Table 17 lists questions that I added to the satisfaction scale.

Conclusion

In this section, I described the themes that emerged in my qualitative Phase 1. Through the interviews, participants reflected on their autonomy and believed that it was an important concept for their online learning. There were seven themes that emerged in the process of defining student autonomy. Those that were confirmatory of the DELES factors included *control of learning, making own decisions, working at one's own pace*, and *metacognitive awareness*. The students also shared their views on student-instructor dialogue. The two confirmatory themes here included detailed, timely, individualized *feedback* and *accessibility and availability of the teacher*. The new themes were *developing rapport, building communicative skills, critical in-mind boundary maintenance, showing care, showing respect, willingness to help, showing effort, showing genuine interest* in the topic, re*gular check-up, development of extra resources,*

use of a variety of media, creation of downloadable materials, use of video in a synchronous classroom and *creating organized classroom*.

Table 17. Question Formation
for Satisfaction Scale

Category	Theme	Q#	Question
Course expectation	Pace	57	Online classes seem to move fast
Course expectation	Work load	58	Online learning requires a lot of work
Learner Characteristics	Emotional comfort	59	I feel less emotional pressure in an online course
Learner Characteristics	Distractions/ mutli-tasking	60	It is easy to get distracted online
Course delivery	Technical problems	61	Technical problems are rare online
Course delivery	Convenience and flexibility	62	Online learning is convenient

My qualitative interviews also revealed students' feelings of satisfaction about the DL context. Many students found DL to be *worthy, enjoyable, exciting, stimulating and satisfying*. Some of them even preferred this environment to the traditional classroom setting. These features, or themes, were confirmatory of DELES. The expansion attributes were *workload, pace, emotional comfort, distractions, technical issues, convenience and flexibility*. All of the new expansion themes were converted into questions and added to the original DELES. The next section will describe the process of

verification for this newly enhanced survey and will present the best sets of questions for measuring autonomy, dialogue, and satisfaction.

Phase 2 and Phase 3 Quantitative Surveys

An enhanced version of the DELES (Walker & Fraser, 2004) instrument (Appendix I) was used in this study twice, in the middle and the end of the course. This instrument included all the scales of the original DELES described below, five demographics items and new questions based on the categories that I identified in Phase 1. The original DELES scales consisted of 42 items. A five-point Likert-type set of choices was used for each scale. Higher scores indicated higher levels of instructor support, student interaction and collaboration, personal relevance, authentic learning, active learning, student autonomy, and student satisfaction. Participant demographic information consisted of five items, including age, gender, years of studying Russian, experience with DL, and languages spoken. Fifteen new items were added as a result of the qualitative interviews from Phase 1. Questions 43 through 56 dealt with student-instructor dialogue; questions 57- 62 explored students' views of the DL environment; questions 63-65 measured students' autonomy; and questions 66 and 67 assessed students' isolation online. Each new item, as well as the process of question development, will be discussed in detail in Chapter IV. The DELES Withdrawal survey contains all of the items of the Enhanced DELES plus Question 68 that asks about the reasons for the student's withdrawal in order to understand the motives behind his/her dropout choices.

Following the creation of my quantitative survey, I began conducting the second quantitative phase at the midpoint of the semester. The third phase of the research also used the enhanced quantitative survey and was conducted at the end of the semester.

Because of my exploratory sequential research design, these phases were secondary to my initial qualitative phase and were meant to be treated as a follow-up to the first phase. As such, the second and third phases of the study were designed to investigate specific aspects of student autonomy, student-instructor dialogue, and student satisfaction in a DL Russian language course and to explore whether these phenomena change over time.

Data Sources

Upon receiving approval from IRB to use my newly enhanced survey, I began recruiting participants for the second quantitative phase of the study. I selected a new nonrandom convenience sample (n= 38), and, with the help of the enhanced DELES instrument, explored the relationships among student autonomy, student-instructor dialogue, and student satisfaction. Demographic data and other important participants' characteristics were also included in this exploration because I wanted to see if these data affected my primary variables. Thirty-eight students participated in survey 1. The same students took survey 2, with the exception of one student who dropped out of the class and took the DELES Withdrawal Survey.

In Table 18, I have provided an overview of the students who were involved in this study. Data were collected from thirty-eight students of whom most (71.1%) were located at School 1 with the remainder (28.9%) at School 2. The gender of participants was evenly split and approximately one-third (36.8%) of the students had previous online experience. The age distribution of students was grouped into three categories: students aged 18 to 24 years (47.4%), students older than 24 years (13.2%), and students younger than 18 years (39.5%). Almost half of the students were fluent in the language other than English (44.7%).

Table 18. Descriptive Statistics for
Survey 1 Participants (N=38)

Variable	Category	Frequency	%
age	17 or less	15	39.5 %
	18 to 24	18	47.4 %
	over 24	5	13.2 %
gender	female	19	50.0 %
	male	19	50.0 %
online experience	no	24	63.2 %
	yes	14	36.8 %
other language*	no	21	55.3 %
	yes	17	44.7 %
Russian (year)	1	27	73.0 %
	2	7	18.9 %
	3	3	8.1 %
school	School 1	27	71.1 %
	School 2	11	28.9 %

* Languages reported –French- 2 subjects, German-3 subjects, Spanish-10 subjects, Japanese - 1 subject, other- 2 subjects; 2 subject reported two foreign languages.

Data Collection

The first survey was administered during the fifth and the sixth weeks of the distance class to collect students' opinions at the first half of the course. Participants were asked to fill out a copy of the questionnaire by logging on to the website hosted by an online surveying company, Survey Monkey. This website provides ethical means to collect data. It is encrypted and designed to protect participants' confidentiality and their responses. As the principal investigator for this research, I am the only person who had

access to the password-protected, private, encrypted survey results. The participants read the disclaimer statement about their voluntary participation and had to click the *agree* button in order to proceed to the survey. They were asked to create a unique password. This way student identity was protected, while the researcher had the ability to relate the first and the second survey to the same student. All minor participants were required to read and sign the approved IRB informed consent form prior to taking the survey described above. The same survey was administered at the end of the course. Such structure allowed testing how opinions changed over the course of the class and demonstrated how the variables of interest were related. One student withdrew from the course and was asked to take the Withdrawal DELES Survey.

Data Analysis

The DELES results from the first and the second quantitative phases were analyzed both separately and in comparison with each other. The first step was to verify and to clean the data. There were nine questions with one missing value for Survey 1 (questions 3, 8, 25, 26, 51, 56, 63, 66, and 67), and one question had three missing values (question 65). Survey 2 had eight questions with one missing value (questions 1, 2, 5, 17, 25, 40, 54, and 57). The most frequent answers, excluding maximum and minimum values, were substituted for missing values for analyses. When the data obtained from the student DELES 1 and DELES 2 were ready, the quantitative (statistical) analysis for both Phase 2 and Phase 3 was performed using SAS 9.2 for all calculations.

In my analysis of phase 2 quantitative surveys I needed to make sure that the newly enhanced instrument was reliable, and that the best sets of questions were used to measure the underlying constructs in Phase 2 and Phase 3 of my study. Reliability

requirements state that a Cronbach alpha of 0.70 and above will provide a reliable estimate of the measured variable. Each question in the scale should also relatively highly correlate with total (at least 0.4 is recommended). For the autonomy scale, questions 30-34 have a standardized Cronbach alpha of 0.86 for survey 1 and 0.63 for survey 2. By adding questions 63-65 (my new questions), survey 1 alpha increased to 0.89 but decreased to 0.48 for survey 2. Changes in alpha are observed if question 65 is removed from the collection, which gives an alpha of 0.90 for survey 1 and 0.52 for survey 2. With this in mind, I chose to include only questions 30-34 to describe learner autonomy, since the additional questions do not improve the scale.

The same process was used for student teacher dialogue to determine the best set of questions for measuring this variable. When all of the candidate questions (43-56) are included in the scale, question 44 shows a very low correlation with the total in both surveys, while question 53 shows a low correlation with the total in survey 2. Exclusion of both questions does not decrease the standardized Cronbach's alpha of 0.93 for survey 1 and increases it from 0.87 to 0.88 for survey 2 (see Table 19). Two subscales that were created from the student-instructor dialogue questions refer to three major themes in student-instructor dialogue: *transcendence of cyberspace* (questions 49-55) and *interrelation* combined with *communication* (questions 43, 44, 45, 46, 48, 51, 52, 56). *Interrelation* and *communication* were combined together because they both dealt with teacher-student interaction. *Transcendence of cyberspace* was used as a separate subscale because it dealt with teacher-material and student-material interaction. The division of the scale in two subscales was done for two reasons. First, it was used to determine whether the subscales could be used as separate measures successfully. Second, it was utilized to

see how the subscales are associated with the satisfaction scale. The subscales also have satisfactory reliability with questions 44 and 53 excluded (Table 19). DL Satisfaction did not require a selection process to determine the best set of questions; it already had a high Cronbach alpha of 0.93 for survey 1 and 0.86 for survey 2. DL Satisfaction, and selected autonomy and dialogue scales, highlighted in Table 19, was used to measure satisfaction, autonomy, and student-instructor dialogue respectively.

Table 19. Reliability Analysis for Scales. Cronbach Alpha Coefficients.

	Survey 1	**Survey 2**
DE Satisfaction	0.936	0.861
Autonomy **30-34**	0.861	0.630
Autonomy **30-34,63-65**	0.897	0.478
Autonomy **30-34,63-64**	0.904	0.520
Dialogue **43-56**	0.933	0.874
Subscale Dialogue- transcendence of cyber space **49-50,53-55**	0.850	0.696
Subscale Dialogue-communication, interrelation **43-48,51-52,56**	0.901	0.834
Dialogue , rev **43,45, 47-52, 54-56**	0.933	0.884
Subscale Dialogue- transcendence of cyber space , rev **49-50,54-55**	0.825	0.755
Subscale Dialogue-communication, interrelation, rev **43, 45-48,51-52,56**	0.918	0.841

Once I decided on the best sets of questions to use as reliable measures of my main variables, I proceeded with my analysis. Associations between my main variables of

interest, DL satisfaction, autonomy, and student-instructor dialogue in both quantitative surveys, demographics, and other participant characteristics were investigated to find out if these characteristics were potential covariates that could modify the associations between main variables. For these analyses, participants' age was dichotomized as 17 or less and 18 or older since student age was not distributed over a wide interval, with 30% of students still in high school (age 16 or 17), 47% of students age 18-24, and 13% of students age 25-28. Other categorical variables included gender, other FL (i.e., students with knowledge of another FL and those without such knowledge), years of studying Russian (i.e., first year or second and third years), experience with taking classes online (i.e., yes or no), and school participating in the survey (i.e., School 1 or School 2). T-tests for group comparisons of DL satisfaction, autonomy, and student-instructor dialogue for these categorical variables (groups) were run together with the non-parametric Wilcoxon test, since the resulting groups had relatively small numbers of subjects per group (i.e., twenty or less). Student-instructor dialogue and DL course satisfaction scores showed some interesting associations with participant characteristics. The results for survey 1 indicate that in the middle of the course female participants were less satisfied with DL than males, $t(36) = 2.04$, $p < 0.05$, but at the end of the course the DL satisfaction score is similar for both females and males. In survey 2, students with previous online experience had higher DL satisfaction scores $t(35) = 1.77$, $p < 0.1$. Students that had first year Russian showed a higher student-instructor dialogue scale scores in Survey 1 $t(36) = 3.31$, $p < 0.05$. The autonomy scale did not demonstrate any statistically significant associations with students' characteristics of interest.

Spearman rank-order correlations for both surveys were computed to estimate the strength of associations between the main outcome variable (student satisfaction) and predictive scales, as well as the strength of associations between some scales of interest for both quantitative surveys. Correlation analyses were repeated by age group since all high school students were from one school, and by school because of the technical problems that prevailed in one school at the end of the course, in order to investigate possible reasons for differences in the correlation analysis results between the surveys. Changes in students' distance education satisfaction, experience in the course, collaboration, personal relevance, active learning, authentic learning, autonomy, and student-instructor dialogue between the times of the assessment (i.e., between the two quantitative surveys) were tested using the parametric (paired t-test) and non-parametric sign tests for differences in paired observations.

Phase 4 Qualitative Interviews

Data Sources

In the final Phase 4, the participants from Phase 1 were contacted for the repeat interviews to explain the results emerged from the quantitative data and to compare these data with the beginning of the semester. Six students out of the initial eight volunteered to participate, while two other students were very busy at the end of the semester and could not find time for the interviews. There was one adult student (male) and three minor students (two female and one male) from School 1 and two adult students (both male) from School 2. Table 20 shows the description of the participants from this phase.

Data Collection

These six participants were asked questions using the same interview protocol used in Phase 1. The addition of this phase was important to see whether any new themes could be discovered in this part of the research, and whether the themes from the Phase 1 were repeated. Having six participants in this phase seemed sufficient since the main themes began to repeat and no new themes, other than the ones found in the first phase, were discovered.

Table 20. Participants of Phase 4
Qualitative Interviews

	Male adult	**Male Minor**	**Female adult**	**Total**
School 1	1	1	2	4
School 2	2			2
Total				6

This phase was also utilized to see if there were any changes in student perceptions, measured with the DELES surveys, as well as any new ones not captured during the quantitative phases.

Data Analysis

All interviews in this phase were transcribed using the same procedures identified in Phase 1. Like in the first phase, I recorded my thoughts on the margins and highlighted new ideas, interesting phrases, or statements. I tried to understand why each of these phrases was interesting and recorded my answers in order to move from the details of the recording to the concepts and then to abstractions. Once I transcribed all interviews, I printed them out along with my comments and used my final list of deductive and inductive codes that I created in Phase 1 to code the data. If passages simultaneously belonged to different categories, they were associated with multiple codes. No new codes outside of the code list established in Phase 1 were found in these data, therefore I did not need to develop any new codes. After the entire Phase 4 data were coded, each student's answer was compared to his/her answer from Phase 1 with two goals in mind. First, I wanted to see if the categories found at the beginning of the course were also important at the end of the course. If the same categories were discovered in both phases, that gave me a stronger argument for the inclusion of any new questions into the original quantitative survey. Second, I wanted to investigate whether there were any differences in the interview responses from the beginning and the end of the course and, thus, determine what changes, if any, might have had occurred as a result of the DL course. I analyzed the changes and compared them to the changes found in the quantitative phases in order to see if my qualitative data supported, contradicted, or built upon the quantitative data. Since one of my main purposes is initiation, the discovery of any paradoxes or contradictions between the two contrasting data sets is also an important goal. The changes observed between the two qualitative interviews were compared with the

changes identified between the two quantitative surveys in order to integrate the data from two types of methods and produce more comprehensive results. Chapter IV describes this process in detail. The comparison of different types of data creates better understanding and enhances the validity of the inferences and instrument's fidelity. If we use several different methods to investigate the same phenomenon of interest and the results confirm each other, we can be more confident that our results are valid (Niglas, 2004).

Mixed Methods Validity

Validity challenges in mixed methods studies are caused by the combination of both qualitative and quantitative research and their respective requirements for validity (Onwuegbuzie & Johnson, 2008). According to Creswell (2008), validity in mixed methods research is concerned with the interpretations of conclusions that need to be rigorous and persuasive and with the way the design may interfere with such interpretations. With each type of research design in a mixed methods study, there are specific steps for determining the validity of that design. My study is a sequential Exploratory Design with the elements of Explanatory Design, therefore, the procedures that ensure the validity of this design are mainly focused on issues related to the research design itself. The validity concerns that are most appropriate for my study, therefore, deal with the following issues: sample, scale and instrument development, and procedures.

The first potential validity concern is that the participants used in the four phases of the study may not be representative of the FL DL population as a whole and may cause sample contamination (Creswell, 2008). To address this problem of participant selection, I utilize a stratified sample for my qualitative data with the students' representative of

group ages, genders, and previous online experience or the lack of it. For my quantitative data, all students are enrolled in online Russian language classes that are of the same duration, the same pace, and follow the same textbook. These criteria ensure that each of the participants has experienced the phenomena that are being researched and are, therefore, representative of the population. To avoid sample contamination issues, I use different participants in the qualitative and the quantitative phases.

A second potential obstacle to validity is the use of qualitative data analysis procedures that may not produce useful scale items (Creswell, 2008). By posing research questions that focus specifically on student autonomy, student-instructor dialogue, and student satisfaction, my qualitative data are directly related to what I want to measure in the subsequent phases of the study. A third potential hindrance to validity is related to the scale development. In other words, there is the possibility that if rigorous scale development procedures are not used, items may be formed that are inadequate, ambiguous, or not representative. Moreover the instrument that is designed may not be better than other literature-based instruments (Creswell, 2008). I try carefully to avoid such validity issues in my enhancement of the quantitative instrument. I follow the recommendations of DeVellis' (2003) to ensure that items are properly structured and are clear and representative of the constructs that they are designed to measure. In using the Distance Education Learning Environment Survey (DELES), I have a reliable instrument and add the questions that are important for my participants and that relate to my main variables. The peer review provided support for my newly formed questions and scales. Finally, in the next sections will describe how the procedures of the study accounted for

its validity and will start with the explanation of the context within which this study was conducted.

Conclusions

In this chapter I have described my research method, my research design, the context, and the participants. I also discussed the main procedures and phases of my study. In doing so, I have outlined the criteria for participant selection, the consent and recruitment processes, the interview protocol, and the main quantitative instrument (i.e., DELES). I have described my instrument enhancement process and my reliability analysis of this new survey. I have also acknowledged my personal bias and described how the credibility requirements for the study were met. This study has been designed to be reliable and valid. It also attempts to account for the shortcomings of other studies that have tested Transactional Distance Theory. I anticipate that this study will add to the understanding of student autonomy, student-instructor dialogue, and satisfaction. I believe that the results of this study will shed light into the complex nature of these constructs and will reveal some patterns of the relationships among them. The findings of my study are discussed in the following chapter.

CHAPTER IV
RESULTS AND DISCUSSION: UNDERSTANDING RELATIONSHIPS BETWEEN AUTONOMY, DIALOGUE AND SATISFACTION

This chapter discusses dimensions of learner autonomy, student-instructor dialogue, and student satisfaction as they relate to the main research questions of my study. The primary objective of this research was to determine if relationships existed between the three main variables of interest: learner autonomy, student-instructor dialogue, and student satisfaction and to explore their change over time. My research questions are provided below:

RQ1. What is the relationship between perceived learner autonomy and student perception of student-instructor dialogue? To what extent does it change throughout the course?

RQ2. What is the relationship between perceived learner autonomy and student satisfaction? To what extent does it change throughout the course?

RQ3. What is the relationship between perceived student-instructor dialogue and student satisfaction? To what extent does it change throughout the course?

In order to answer each of these questions I utilized both quantitative and qualitative data from all four phases of my study. Quantitative data from phase 2 showed that there is a significant association between autonomy, dialogue and satisfaction in the first half of the course. Qualitative data not only supported these quantitative findings but demonstrated which features of autonomy, dialogue and satisfaction were connected with

the other two constructs, thus providing a more precise understanding of these relationships. Quantitative data from phase 3 demonstrated that each construct increased in time, but as they increased, the relationship among them decreased at the end of the course. Qualitative data from phase 4 confirmed that perceived autonomy, dialogue and satisfaction increased throughout the course, and that the relationship among them decreased. Therefore, since my research questions are concerned with the relationships and change in time, I organized this chapter accordingly. I will discuss relationships between the main variables at the beginning of the course based on the quantitative data from the survey 1. I will then provide an in-depth analysis of my qualitative interviews from the phase 1 to demonstrate the features of each construct that were important for connection with autonomy, dialogue and satisfaction. Then, I will talk about relationships among my main constructs at the end of the course that emerged from my quantitative data from survey 2 and will show how they changed over time. I will also analyze these changes based on my qualitative findings from phase 4.

Relationships Between Autonomy, Dialogue and Satisfaction in the First Half of the Study

Quantitative surveys were used to determine if the relationships existed between my main there variables. The statistical analysis demonstrated that there were definite relationships between autonomy, dialogue and satisfaction in the first half of the course. For these purposes, Spearman correlations were calculated. Spearman correlations for survey 1 are displayed in Table 21. This table shows statistically significant positive correlations between satisfaction and autonomy ($\rho = 0.42$, $p < 0.01$) and between satisfaction and student-instructor dialogue ($\rho = 0.40$, $p < 0.05$). A significant positive correlation is also shown between autonomy and student-instructor dialogue ($\rho = 0.46$, p

< 0.01). This gives evidence that an increase in any variable is associated with an increase in both of the other variables.

Qualitative data support this finding and provide even more in depth picture of the relationships that exist among three variables. In my phase 1 interviews I discovered that each construct is multi-dimensional as students discussed various attributes of each variable. These interviews also showed which features of these constructs were important for the other constructs.

Table 21. Spearman Correlations for Survey 1

Variable	1	2	3	4	5	6	7	8	9	10
DE Satisfaction	1.00	0.38*	0.19	0.59**	0.37*	0.65**	0.42**	0.40*	0.48**	0.28
Experience in course	0.38*	1.00	0.15	0.38*	0.50**	0.35*	0.47**	0.69**	0.73**	0.56**
Collaboration	0.19	0.15	1.00	0.43**	0.38*	0.29	0.16	0.30	0.29	0.26
Personal Relevance	0.59**	0.38*	0.43**	1.00	0.50**	0.61**	0.48**	0.44**	0.54**	0.26
Authentic Learning	0.37*	0.50**	0.38*	0.50**	1.00	0.32	0.34*	0.62**	0.60**	0.59**
Active Learning	0.65**	0.35*	0.29	0.61**	0.32	1.00	0.61**	0.40*	0.56**	0.21
Autonomy	0.42**	0.47**	0.16	0.48**	0.34*	0.61**	1.00	0.46**	0.61**	0.26
Dialogue, rev	0.40*	0.69**	0.30	0.44**	0.62**	0.40*	0.46**	1.00	0.91**	0.90**
Dialogue-communication, interrelation, rev	0.48**	0.73**	0.29	0.54**	0.60**	0.56**	0.61**	0.91**	1.00	0.68**
Dialogue-transcendence of cyber space, rev	0.28	0.56**	0.26	0.26	0.59**	0.21	0.26	0.90**	0.68**	1.00

*-p-value<0.05;**- -p-value<0.01

In a similar manner, qualitative interviews showed that all three variables are very interconnected. Such connection is demonstrated by Figure 7. In this section I will

discuss the relationships between autonomy and satisfaction, autonomy and dialogue, dialogue and satisfaction. I will show which attributes within each of these constructs were important for these relationships.

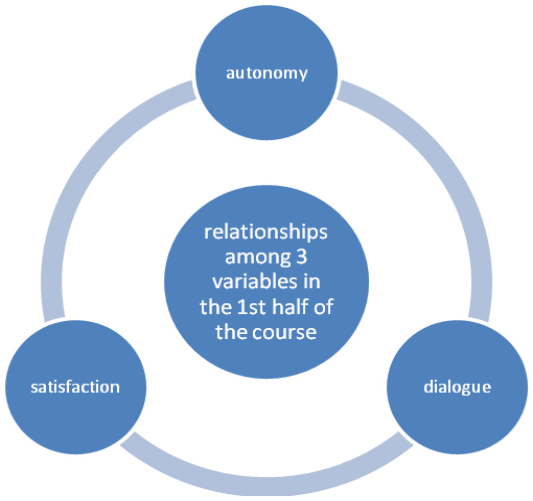


Figure 7. Relationships Between Dialogue Autonomy, and Satisfaction in Phase 1

Autonomy and Satisfaction

Since there is no universal understanding of autonomy in the FL theoretical literature (Benson 2001; Breen & Mann 1997; Finch 2002; Oxford 2003; Pemberton 1996; Sinclair 2000) it was important to find which features of autonomy emerged through my study. As I discuss these features I will show which attributes of autonomy were connected with student satisfaction.

Such attributes of autonomy as *control of learning*, *making own decisions*, *working at one's own pace* and *metacognitive awareness* seem to be connected with student satisfaction. Table 22 visually demonstrates these features.

Table 22. Relationships Between Autonomy and Satisfaction

Features of autonomy connected to satisfaction
Control of learning
Making own decisions
Working at one's own pace
Metacognitive awareness
Isolation

The first feature, *control of learning*, seems to be an important ingredient of learner autonomy (Benson, 2001; Dickinson, 1995; Holec, 1979) that is also associated with satisfaction. For example, Anne is a high school student who was enrolled in the college-level Russian class at school 1. She was very excited about taking an online class with older students and was trying to succeed. She believed that one reason for her success was that she was in *control of* [her own] *learning*. She stated that the online environment helped her to stay focused and not to fall behind. When I asked her to elaborate on the ways she considered herself to be in control of her own learning, she said that online classes allowed her to go back to the material that she missed or that she did not understand quite clearly and to go over it again and again until she completely

comprehended it. As she said, "I like that the materials are there for you. You can always go back and repeat all information that you missed or to repeat it before the test". Anne's ability to be in *control of* [her] *learning* materials was very helpful in the online environment, where, according to her, "if you fall behind it is hard to get caught up." She believed that it is harder to stay on top of the projects online than it is in a traditional classroom. She said, "When you are missing one assignment, it turns into two, three and more … and when the quiz comes you are like: oh…no… now I don't have all of this information that I need." Therefore, being in *control of learning* online allowed her to be able to revisit missing material, avoid falling behind and related to her satisfaction with the DL environment.

Jake believed that being in control of learning was also related to his satisfaction. He thought that if students were in control, they were better able to address any issues or problems in the course without having to wait for his professor. He said:

> It [online learning] is less on the professor and more on the student… The professor cannot be there for you unless if you ask for her help…. So you need to do your assignment, send it to her and get your grade. You don't need to depend on the teacher. You choose what to do when you have an issue.

Therefore, being in control of one's learning environment is an important feature of autonomy. It allows the student to understand that learning does not just happen to him/her. The learner is an active participant of the learning process and has not relinquished their control. Whether it means that the student needs to choose when and how to study, or when and how to approach his/her teacher, it is essentially the learner's control of learning that makes him/her autonomous online.

Another theme that was important for learner autonomy and satisfaction was *making own decisions* (Holec. 1979, Benson, 2001, White, 2005). For instance, Alex

described himself as an older student, as he is over fifty. He talked about himself as an accomplished lawyer who has a well-established career, but who is passionate about Russia and Russian language. He was taking Russian classes for personal reasons that he did not want to discuss and was very grateful for the online class. Alex reflected on his ability to make his own decisions about his studies and self-pace his learning process which is clearly related to his satisfaction with the course. He enjoyed the opportunity to decide when to study and scheduled his own week according to his priorities:

> I like the ability to self-pace online. I can just take one day and do all of my homework if I want to. Sometimes I have a deadline at work and I cannot study at all during that time. But then, after the deadline I can put in 16 hours if I need to into my Russian class. So I like how you can do it when you want to and put in as much as you want to into it.

Because of his busy schedule, he would not have been able to take a traditional class and would not have been successful in a traditional classroom. He was happy to be able to make decisions about how, what, and when to study.

In addition, a feature of autonomy that is connected with satisfaction is *working at one's own pace* (Dickinson, 1995; Little, 1991). Kate is a college-level student who really liked Russian and who was enrolled also as a full-time student in other traditional classes. She had "a lot on her plate" and lamented that she was not an "A" student in Russian, as it was really difficult for her to manage all of her classes and have a part-time job. Therefore, she liked the opportunity to work at her own pace and access materials whenever she needed them. She stated, "I like that all of the resources are there for you." However, she said that the availability of the materials themselves did not necessarily make learning successful. It is the students' decision making about their own learning and their ability to work at their own pace that makes a real difference. Kate maintained:

> I am not afraid to fall behind because I feel like everything is written online and I can go on anytime I want and just be there online, in one spot instead of doing research. If you don't understand something you can just look it up in the archives, or online we do not have to go to the teacher every time.

Despite the fact that she was not an "A" student, Kate was still successful online, and she was happy about being able to work at her own time to accommodate her busy schedule. She received good grades and felt like she made great progress in Russian. She realized the opportunity that the online environment provided for her and used it to her advantage. When she started feeling that she was falling behind, she was able to revisit the archives of the lectures and go over the tutorials that she had not had time to study before.

She also demonstrated highly evolved *metacognitive awareness* (Little, 1991, Van Lier, 1996; Benson, 2001), which seems to be another important characteristic of learner autonomy that is associated with student satisfaction. Kate chose what to study and how to learn according to her preferred learning style. She admitted that often she did not cover all necessary materials, but that she selected the assignments that were worth many points and chose the most important topics that helped her complete these assignments. She referred to this ability as "being selective" and explained her cognitive learning style. She stated, "I like being able to see the rule. I am not good with listening activities. I also do not like to look things up for hours… it kills my motivation…..I like charts. They give me all information that I need in one spot! When Kate studied for the test, which she never skipped because tests are usually worth many points, she went over the archived lectures while having the teacher's handouts in front of her. If the handouts were not available, she made her own chart. She liked to be able to reference a handout and to find all of the important information presented in a clear and condensed form. She had a separate binder with such charts and handouts that she used during the class and during

her assignments. Her satisfaction with the course was high because the course could accommodate her metacognitive skills that, in turn, were important for her autonomy. She said: "I like having tangible materials. I printed all handouts and charts and kept them in a binder. It really helped me on my tests!"

Moreover, an attribute that is important in our discussion of autonomy is that of *isolation.* These two constructs seem to be very closely related (La Ganza, 2001, 2004, 2008) and may either make students satisfied with the course or dissatisfied. Most students admitted to feeling isolated from their peers and from their teachers to a certain degree and expressed their negative attitude towards this feeling. Alex even saw *isolation* as an inevitable part of the online learning experience and called it a "sacrifice" that one needed to make when taking an online class. He said, "I do feel a little isolated. There is an advantage to being able to interact with the teacher or fellow classmates. I guess it is a *sacrifice* that one must make when choosing online learning." His conclusion summarizes a common feeling of the majority of the participants who felt more isolated online than in a classroom. The data shows two forms of isolation: isolation from peers and professor and isolation from the learning materials. When Anne compared the FTF classroom with the online context, she concluded that she felt more isolated online:

> When you are learning online it is more isolated because you don't see the people. You have never met them before. You have not talked to them that much. So I don't know if I want to ask them questions just so they think I am stupid… you feel a bit uncomfortable in the beginning, so it is one of the differences socially…

Anne's reasons for feeling isolated online were based on the fact that there were few opportunities for social connections with her peers. Anne believed that connections with peers, and with the instructor was the key for transcending the feeling of *isolation* online. When asked to give suggestions to teachers to eliminate isolation in online, she answered:

> On the first day it would be nice to have students introduce themselves and talk about themselves so you don't have this feeling like oh… I don't know who these people are… It would be nice for the teacher to encourage students to study together, to do common projects together because the teacher is a valuable resource, but so are the students.

Even if students are provided with each other's contact information, they might feel reluctant to communicate outside of the class because they do not know each other as well as in an FTF classroom. Pete said:

> I don't like it that there is no connection between the students…I did feel isolated. You can't get as much help from other students in class because you don't know them that well…then I figured how to learn on my own.

Alex described a similar experience. He stated:

> We have the ability to connect with other students through the email. I never tried to do that, but it is possible, even with Skype… so maybe isolation would have been because I did not do anything about contacting my fellow students.

Students explained that *isolation* could also be caused by the online experience itself, whereby their course materials and the course structure did not engage them and did not promote a connection to the course. At the beginning of the course the students viewed their online lessons as correspondence courses wherein the role of the learning materials was to provide data and assignments. The students learned alone and submitted these assignments by the designated deadlines for the teachers' review. Pete lamented, "Online learning is like a self-study course. I go over the tutorial, do my homework and submit it for a grade." The feelings of isolation seemed to prevail in the interviews in the first phase of the study and seem to negatively affect their satisfaction with the course. Anne described her online experience as a very lonely one in the beginning. She felt that her online class provided a very isolated environment wherein neither the connection with the students nor with the materials existed at the beginning.

To summarize, there were several features of autonomy that related to students' satisfaction. Such attributes of autonomy as *control of learning, making own decisions, working at one's own pace* and metacognitive awareness helped the students feel satisfied with the course. Closely related to autonomy, isolation, was perceived as a negative feature and corresponded to a dissatisfied feeling among the participants of the study.

Autonomy and Dialogue

There were several features of autonomy that were connected with dialogue. These features are visually represented in Table 23.

Table 23. Features of Autonomy Important for Dialogue

Features of autonomy connected to dialogue
Responsibility
Self-direction
Preference to work alone

The feature of *responsibility* (Holec, 1979; Little, 1991) seems to be important for connection between autonomy and dialogue. Chris was a participant who really understood his own responsibility for learning. He was a high school student taking college-level classes. He was very excited about learning online and believed that distance classes made him look smart because he was using technology and a self-paced environment to learn an FL. He realized that there were many disadvantages to learning

online as opposed to traditional learning. He thought that in an FTF classroom there was more opportunity for practicing new materials, while online a learner had to do many things on his/her own. However, according to him, success comes to those who take responsibility. His formula for success was simple yet insightful, "You need to be responsible for the class, to study hard, and even just show up," Chris demonstrated maturity in his judgment about online learning. Instead of complaining about the features of the distance classroom that impeded learning, he was ready to take charge of this environment and thus controlled for the dialogue in the DL classroom. Thanks to his responsibility he could control the dialogue between him and his instructor. He said:

> I do feel that there is a different form of discipline that is required for an online study because the student is pretty much on his or her own, so it does require a lot of independent effort, 'cause often the teacher is not there to help you. I don't blame the teacher though. They can't be there for you 24/7, at weird hours. I need to be in charge and do my own work and research… so I guess you can say that I have determination to work through any problem.

This statement was echoed by Anna's attitude towards her learning. She saw herself as an active participant, as a responsible being who could achieve desired results, despite the numerous obstacles presented by the online context. Her responsibility also helped her control for the dialogue in class. She said:

> Of course, I am responsible for the way the class will turn out for me. No matter what the teacher does or does not do, I need to be there to know what is required of me, to manage my time, to make sure I follow all deadlines and don't fall behind… and when I have a problem, I think it is my responsibility to come to the teacher for help.

One more feature of autonomy that is related to dialogue is *self-direction* (Candy, 1991; Dickinson, 1995; Schunk & Zimmerman, 1998; Wenden, 2001: White, 1991). Anne, for example, believed that strict time management and self-organization were the key factors for her success and for her control of the dialogue. She described the online

environment this way, “You need to have a very disciplined schedule where you need to do something at least every day, or you’ll fall behind.” In my data, *self-direction* theme is repeated over and over again. Rachel, while discussing the reasons for her online success, discussed how difficult it was for her, a college-level student, to manage her workload and not be able to contact her professor whenever she needed help. However, thank to her ability to self-direct she was able to overcome this lack of dialogue. She said:

> Well, it is very hard to feel connected when you only meet a couple of times a week, and not like in a physical university, where I can just go and see my professor. There are no social activities, no clubs, nothing like that! So you pretty much have to motivate yourself in order to succeed and stay on top of the projects. Just do something every day. Good thing I am OK with it. I have a very high level of motivation and I can keep myself occupied and on track.

Despite the fact that her professor was very quick to respond to her emails, Rachel often did her homework at night after work. She did not expect her professor to be available at these late hours, thus, she often needed to self-direct her learning. She believed that in a physical classroom it was much easier to ask her peers for help. Online, where no one really knows his/her classmates or even knows how they look, it is often challenging to reach out to peers for help. Rachel pointed out that she was able to overcome the feeling of isolation and compensate for the needed dialogue because she enjoyed working on her own and self-direct her learning, “I am a self learner. I learn better when I can go back and teach myself”.

One more feature of autonomy that seems crucial online and is connected to dialogue is *preference to work alone* (Little, 1991). For example, Pete, who is a college-level student, described himself as an introvert. He talked about how uncomfortable he felt in a traditional classroom. He believed that he had a social anxiety about talking to his peers or when he was “put on the spot” by his professor. The possibility of failure, the

fear to forgetting correct grammatical forms, and the chance of being laughed at made learning in an FTF context very stressful for him. He enjoyed the online environment, and stated, "I really do not need interactions with others. So I feel better working on my own." His ability to work on his own helped him with his interactions in the DL course:

> There is more stress in a face to face classroom… there is more you can see…. when the teacher calls on you or wants you to say something in Russian and you mess up. It is embarrassing because you are physically in the classroom and all students know who you are, but in the online classroom it does not feel as stressful, it is more anonymous as you are not actually there physically. I like to work on my own when I feel anxiety and to be able to connect with others when I feel like socializing.

Not only introverted students preferred working solo online. Jake is a very extroverted college level student and is a world traveler. He comes from a large family and is used to socializing with his numerous relatives in the United States and in Italy. He speaks three languages and took a Spanish class in Mexico to advance his language skills. He enjoys travelling and getting to know different people. Despite the fact that his main career goal is to be a scientist, he has passion for languages and foreign countries. Throughout my interview with Jake, he often reflected on how good he felt speaking a foreign language. He liked relating to others and being able to learn interesting things about other languages and cultures. Nevertheless, he also seemed to prefer to study on his own. He felt very confident in his ability to learn a foreign language and seemed to know how to learn it best. That is why often he just liked to be "left alone" by his teacher and his peers, and his ability to control the dialogue especially if he was uncomfortable or busy. He said:

> I feel a little bit [of] isolation [online], but I like it. I don't need to worry about other people looking at my facial expression when I don't know something as I have some awkward feeling. I don't need to talk to anyone or explain something to my peers if they don't understand it. I always do work ahead of time so I don't

> fall behind and I like that I can do it on my own, without waiting until the whole class gets it to proceed to a new topic.

His preference to work alone connected with the dialogue in this course, as he said, "You get to work how you want to work and I don't like having to completely rely on the teacher or technology or classmates the whole time." He believed that online learning is "less on the professor and more on the student," and he really liked such independence.

There were also some features of dialogue that related to student autonomy. These features are demonstrated by Table 24.

Table 24. Features of Dialogue Important for Autonomy

Features of dialogue connected to autonomy
Interrelation (critical in-mind boundary; care, showing effort)
Creation of organized classroom
Availability of extra resources

Another category that was important for my participants' autonomy and that dealt with student-instructor dialogue was *interrelation*. The topic of *interrelation* has been discussed in detail by La Ganza (2001, 2004, 2008) in his research and in his dissertation on student autonomy in online FL environments. *Interrelation* is the dynamics found in student-instructor relationships, wherein the student resists asking for help and the teacher resists influencing the student but provides connection on the affective level. This idea seemed to be central in my qualitative interviews at the beginning of the course and

was consistently present at the end of the course in the Phase 4 follow-up interviews. The data from my research indicates that students were very aware of the interrelational strategies of the teacher defined by La Ganza (2001, 2004) as important for student autonomy. Many participants talked about the importance of maintaining the *critical in-mind boundary* (La Ganza, 2001, 2004) that held their interrelation with their teachers and allowed them to develop autonomy and avoid isolation. They believed that teachers needed to give them space, yet, at the same time, to provide them with the feeling that they were cared for. Rachel, for instance, stated:

> The teacher needs to make sure I am on task, but the teacher cannot be constantly on your back, asking, 'did you do this, did you do that?' The teacher needs to provide enough help. It just depends from student to student and from day to day. The teacher just needs to be there when I need him or her. But I don't want tons of emails going back and forth. I want to be able to figure things out on my own.

Alex resonated with Rachel's feelings. He said, "I do not need them [teachers] to communicate with me too much, but they need to communicate with me when it is necessary, when I have a question." The students appreciated when their instructors were sensitive to their needs and were there to provide help when they needed it. However, students also wanted their instructors to give them enough space to figure out their own personal learning approaches. Jake also believed that sensing the *critical in-mind boundary* (La Ganza, 2001, 2004) is an important characteristic of a good online teacher. In other words, a teacher needs to develop almost intuitive feeling of when to get involved into his/her students' work and when to pull back. According to Jake, "Good teachers don't make you do it all on your own. They don't give you the answer but they help you move closer to the answer." A bad teacher, according to him, "just gives you an assignment and expects you to do it on your own. They don't answer your questions or

just give you an answer… without letting you figure it out yourself." Therefore, similar to La Ganza's (2001, 2004) studies, the students in this research had a very well developed sense of the *critical in-mind boundary*. They expected their teachers to sense when to help and when to let their students figure things out on their own. This feature of dialogue seemed to be highly connected with students' autonomy.

Another feature of student-instructor dialogue that is important for autonomy is *care*. The idea of *care* is also discussed by La Ganza (2004, 2008), who found that, in order to be effective in maintaining the *critical in-mind boundary*, instructors need to demonstrate their *care* for their students. The theme of *care* also seems to be an important ingredient in the topic of interrelation in my study. Students admitted that instructors' concern affected their motivation, work ethics, and their overall satisfaction with the course. Chris, for instance, clearly demonstrated how his instructor's *care* interrelated with his motivation for the course, "If the instructor cares, I will care too!" Indeed, the student and the teacher interrelated in their feelings for the course. The more the instructor cared, the more likely that the student cared about the course. The opposite relationship was also true. The less the instructor cared about his students, the less likely that a student cared about the class. Chris said, "If the teacher does not care, then why do I care?" Every single participant, when asked if he or she needed to feel that their instructor cared about them, answered the questions positively. Stacy, for instance confessed:

> Yes, I need her to understand me when I have a problem. I do need to feel that my teacher cares about me… that makes me want to move on. I think it's important when any teacher cares for you. It makes the student more comfortable so we can learn better and we can push harder.

Students stated that a caring attitude could be expressed in a variety of ways. For instance, Pete described a caring and not caring teacher in the following manner:

> I don't know if I need to feel that the teacher cares about me, but it does help. Having a teacher remind you that you can ask questions, having office hours is great. If you are struggling during the class and they are helping you instead of embarrassing you in front of the class… it helps. A not caring teacher does not say hello and good bye ….something that small… by starting the class without acknowledging the students and not keeping them involved would be a really bad thing…By making isolation… by allowing the students to feel very isolated would be bad… it is hard already online as it is a physical isolation… but I can imagine it could be extremely isolated if they are not offering to help, you do not acknowledge the students at the beginning and the end of the class… that shows you he does not care!

Therefore, *care* is expressed in various ways for different students. For Pete, for instance, *care* was seen through respect and support, through engaging the students in class, through acknowledging students, and through maintaining basic etiquette in the online context. For Alex, it was the teacher's availability and timely responses that made him feel cared about. He said, "I do need to feel that she cares about me. She can show her care trying taking time to explain the concepts. Not being available, no timely response to questions will show me: she does not care." Thus, when asked how they will know if their instructor cares about them, participants stated that this feeling could be expressed through the instructor's genuine concern, through his/her leniency, through understanding and patience, through the encouragement that he/she provides to his/her students, and even through "saving" them in class. For example, Pete expressed his gratitude to the teacher who helped him avoid embarrassment in front of other students. When Pete forgot a Russian word during his presentation, his teacher used the individual chat area in a virtual class and typed the word for him. This was a sign for Pete that the instructor cared about him, which made him want to study more and increased his motivation for

the class. Therefore, the instructor's *care* was an important component of student-instructor dialogue. It helped maintaining critical in-mind boundary between the teacher and the student, when the students is comfortable learning autonomously and does not feel isolated.

Closely related to the notion of *care* is *showing effort* (La Ganza, 2001, 2004), which affects instructor-student interrelation and student autonomy. It seemed to be very important for the students to see that their teachers put in a lot of effort in the classes. The more effort was put by instructors, the harder that students wanted to work. This idea has found support in the literature. For example, Marsh (2001) found that those teachers who give more high quality work, and not those who do not give any assignments, are seen as more effective by students. Students consistently reported that, if their instructor appeared to be just "killing time" (Anne) during a class or outside of the virtual classroom, they were less willing to put in a lot of work into the course. Anne's comments demonstrated how her teacher's effort affected her experience in the course. She said, "Well… if the teacher is just checking your work and sends a grade back and does not put any effort or explains what your weaknesses and strengths are…it is very annoying. Why do I need to put in effort then?" She further discussed her feelings and showed empathy for the amount of work that the teacher must do in a DL classroom, "I know that teachers have a lot to do… But I still need to see that they put in effort. I would feel frustrated if it were not the case." Thus, despite her understanding of the workload that is required to teach online, Anne still needed to see that the teacher put in a lot of effort. Similarly to Anne, Alex needed to see his teacher's effort, "But I also put in a lot of time into this class… It takes both of us to work hard." Anne's and Alex's experiences

illustrate how important it was for the students to see that their online teacher put in effort into their class. The students were very supportive of their teachers and understood that teaching online required a lot of energy from both the instructor and the student. Nevertheless, their comments demonstrate that when the teacher showed effort it made the students feel that they were cared about and boosted their autonomy. The contrary was also true. The less effort that was put forth by the teacher, the less that the desire to work autonomously was developed in the students.

As was discussed in detail in Chapter 2, La Ganza (2004) found that *willingness to help* is another important component of successful teacher-student interrelation that is connected to autonomy. Several students mentioned how their instructor's willingness to help affected their autonomy. Rachel said, "I don't know… I guess even the idea that the teacher is willing to help makes me want to work hard. They don't even need to provide me with the answer… just show me that they are here in case I need them." She discussed the qualities of a good online teacher and said, "The teacher needs to make sure the student is Ok when they started well, and [then] started failing the course. They need to be there to help." Jake also reflected on this quality and believed that, even in an online distance class, students have an ability to understand if the teacher is willing to help or not. He analyzed his experience this way, "The teacher needs to be able to help and show genuine concern, and not just sit there for an hour to put in time. The students can sense that." According to Jake, DL is a very sensitive environment. Although deprived of facial expressions and non-verbal clues that are provided by physical appearance, there are other clues that the students can detect while studying online. He continued with reflecting on his personal experience in class, "I liked how my teacher reacted when I got

a C on my test. She did not just give me this C. She was like, 'what is going on with you?' I know you are a good student. Can I help?" Jake really liked this approach. He felt that his teacher was not there just to answer his questions because it was her job, but because she was really concerned about his well-being. It seemed that often it was not even the help itself that was important but just the intention that counted for the students. Therefore, a teacher's *willingness to help* is very important for developing autonomy in the online environment.

Interview participants also commonly mentioned that in order to be autonomous without feeling lost online, the feature of dialogue that deals with *creating an organized classroom* (DeBourgh, 2003; Rangecroft, 1998; Thurmond, 2002) was very important for them. In a DL environment, a student very often has to work by him/herself. It is very frustrating if he/she cannot easily find homework assignments, locate a test, or review a course syllabus. Being lost online enhances the feeling of being lost in the class. Pete suggested, "I don't mind finding answers for my Russian homework on my own, but I do want to be able to find the activity and the test easily… otherwise it's like…. a waste of my time". Kate stated, "It is very important to be organized for the teacher. They have to lay everything out there for you." She believed that a good online teacher needs to be organized in order to provide maximum benefits to his/her students. She said:

> [A] great teacher will be organized so the students do not have questions where to find materials they need. Having an organized website is very important, having an organized class [synchronous] is even more important, as the teacher needs to squeeze in tons of things into that hour!

Indeed, many students said that their learning experience was much more enjoyable when their teacher created order and structure online. Easy access to all activities, deadlines, and the class schedule promoted their connection in a DL classroom and made studying

autonomously a less isolated experience. When students logged in to an organized, consistently structured website, they felt welcomed and encouraged by the teacher to learn. When their teacher developed an organized synchronous classroom, it was easier to follow the lesson. When students had to spend numerous hours searching their class website for basic information, they felt that they were wasting time and were more likely to feel disconnected and unmotivated (DeBourgh, 2003; Rangecroft, 1998; Thurmond, 2002).

Finally, *development of extra resources* by teachers provides more opportunities for learning and practice, which is very important for autonomous learning (Okuna & Meskill, 1998). Rachel proposed, "Go through difficult material in class… then give us [a] bunch of links to different resources. I like to have a choice and more materials than needed to practice. I like the variety." Jake and Alex also expressed the need for more learning opportunities. Jake stated, "I wish we had more links to some videos and some other websites. I had to search for some materials online on my own. It would have been helpful to have it all provided for you in the Blackboard." Alex exhibited similar feelings, "More practice, more exercises and more links would make up for the lack of practice in class." The majority of students noted that one of the main differences between traditional and online learning was the lack of or limited opportunities for practice. Language practice is especially important for the development of FL communication and pronunciation skills. To help students practice their new materials on their own, students suggested that teachers provide a list of resources and links to other such learning materials.

To summarize, such features of autonomy as responsibility, self-direction and preference to work alone were related to the student-instructor dialogue. Thank to these attributes the students could control and navigate the dialogue in the DL class. Some characteristics of dialogue had also associations with student autonomy. Maintaining critical in-mind boundary, showing care and effort, creation of organized classroom and availability of extra resources seem to positively affect autonomy.

Dialogue and Satisfaction

Qualitative interviews confirmed that student-instructor dialogue was very important online and seemed to be crucial for student satisfaction (Moore, 1993; Saba, 1999; Stone, 1990; Young, 2006). Participants expressed the need for detailed, timely, and individualized *feedback* (Gibbs et al., 2003; Lyster & Ranta, 1997; Oscoz, 2009) and believed that *accessibility and availability of the teacher* was vital for their successful interaction with the teacher (Berge, 1999; Bolliger & Martindale, 2004; DeBourgh, 2003). Students also identified the following attributes of dialogue as essential for their satisfaction with DL, including *developing rapport* (Herring & Smaldino, 1997; Lim and Cheah, 2003; Simonson & Russo-Converso, 2001), *building communicative skills* (Lamy 2004), *showing genuine interest* in the topic, *showing respect* (La Ganza, 2001, 2004), *use of a variety of media* (Johnson & Howell, 2005), and *use of video* in a synchronous classroom (Gorsmire, Morrison, & Van Osdel, 2009). Table 25 visually demonstrates these attributes.

The first theme, detailed, timely and individualized *feedback* (Gibbs et al., 2003; Lyster & Ranta, 1997; Oscoz, 2009), was consistently reported as crucial for student satisfaction in online learning environments. Most students mentioned feedback as

important for their success online. The ability to provide valuable *feedback* on time was mentioned by every student as one of the most important characteristics of the ideal online teacher.

Table 25. Features of Dialogue
Important for Satisfaction

Features of Dialogue Important for Satisfaction
Feedback
Accessibility and availability
Developing rapport
Developing communicative skills
Genuine interest in the topic
Respect
Use of a variety of media
Use of video for the synchronous class
Downloadable materials

The inability to give useful prompt *feedback* was seen as a feature of a bad online instructor in both sets of interviews at the beginning and at the end of the courses. Rachel, for example, reflected on her class at the beginning of the class:

> I would like to receive feedback from my teacher right away. And not just like 'oh… you did a great job!' Let me know what I am doing well, and what I am doing not so well…explain how to fix it… I had teachers before that give you this general statement at the end of your work… well… I cannot do anything with the general statement. I need [to know] things specific to my work.

She expressed similar feelings at the end of the semester:

> The teacher needs to provide us with detailed and timely feedback. She needs to show you what you did wrong and how to fix it. I hate when the teachers send email that start with "dear students". It makes me feel like I am a number, not a human. I think they can spend a couple of minutes and add a name to it…

Offering personalized responses, therefore, can create a sense of connection between the student and the teacher and leads to student satisfaction online. The student can feel even less isolated when they are addressed by their name and when the teacher reflects on a peculiar characteristic of their work. Pete said, "Detailed feedback [is important] when the teacher shows you what you did wrong and how to fix. It can make me feel connected." Valuable *feedback* not only underlines mistakes and proposes possible solutions, it is given in a timely manner while the student is still interested in learning from the teacher's response. Chris, for example reflected, "A lot of feedback is good. I need to know if I am doing fine but I also need to get [her] response quickly. If you don't get it right away then who cares? It's too late." Despite the fact that most participants wanted to know what they were doing wrong, they reflected that teachers' *feedback* should be encouraging. Anne stated, "I need to feel like I am doing a good job. Otherwise, I lose my motivation." She then developed this idea further:

> It is nice to receive an email with like "Hi, you are doing a great job!" especially in the online class. I think you really need the reinforcement to let you know that you are doing well and you are learning 'cause you are not in class where you can see their nodding head in approval or a smile.

Feedback that is prompt, detailed, personalized, encouraging, and provides opportunities for learning seems to be vital for students' satisfaction with a DL course (Northrup, 2002; Thurmond, Wambach, & Conners, 2002). It has the capacity to provide students with a sense of belonging, to increase their motivation, and to improve their learning.

Accessibility and availability of the teacher is also vital for student-instructor dialogue and also seems to be important for satisfaction (Berge, 1999; Bolliger & Martindale, 2004; DeBourgh, 2003; Rangecroft, 1998; Thurmond, et al., 2002). All participants reflected on the importance of these characteristics in a DL context. Ideal online teachers, according to the students, are those who hold regular office hours, provide various forms of contact information, check their email regularly, and respond to students' inquiries within twenty-four to forty-eight hours. It seems that the *availability of the teacher* is even more important than his/her quick correction of students' work. If instructors respond promptly to students' emails and let students know when their assignments will be graded, many students will feel comfortable and content. According to Stacy, an ideal teacher possesses the following characteristics:

> An ideal online teacher is available by email and telephone. She needs to be available outside of the classroom. The teachers need to be able to check their email at least once every day. They should be available for whenever you have questions. I understand that it is tough to correct our homework on time every time. Shoot me an email and let me know when I can see my grade…that is cool with me.

Pete supported the idea that a good online instructor is the one who is easy to reach and who is *available* to his/her students. He described a bad teacher as "someone whom you never hear from." He also saw teacher unavailability as a lack of care for students. He said, "If a teacher does not care, they will not communicate with you at all. Communication, especially in this environment, is the key!" Pete, reflecting on his online experience at the end of the class, expressed similar feelings. He said, "If you can actually communicate with the teacher, and he responses in a fairly quick time, it is a really good teacher! It helps a lot. Being able to react in real time is absolute must." Jake echoed this idea:

> An ideal online teacher will stay in contact with you and give you an idea of your work through the email or whatever. [In order for me to feel connected, the teacher should] stay in contact with us, to email us what we do wrong, and we can email or call her if we have any questions.

Therefore, being able to easily contact a teacher who is available for help and answers on a regular basis seems to be one of the most important characteristics of dialogue and vital for student satisfaction in the DL environment.

Two other features of student-instructor dialogue that seem to be crucial for satisfaction are *developing rapport* (Herring & Smaldino, 1997; Lim and Cheah, 2003; Simonson & Russo-Converso, 2001) with students and developing *communicative skills* (Lamy 2004) in Russian. These were stressed by many participants who believed that personal communication, or rapport, with their instructors could make them feel more involved in their classes, feel less isolated and more satisfied with the class Thus, in order to feel connected and more comfortable in the online class, Jake proposed using icebreaking activities at the beginning of the class so that students could learn about each other and their instructor. He said, "I usually hate these introduction activities, but they are very helpful online. It is important to get to know each other and to learn about your professor." He further discussed that having an instructor's web page, where one can learn about the teacher's professional and personal life, was important. He went even further suggesting the incorporation of social networking into the DL classroom. He stated, "It is nice to keep connection on a personal level. Maybe a teacher has a Facebook account… something like that." At the end of the course during our follow-up interview, he repeated this idea and discussed the importance of *developing rapport* with his instructor and his peers. Jake stated:

> It would be good to have social networking… like we have to be connected like that. Or having an introductory class, so we know how is there and learn about each other. Sometime I interact with students in the classroom, but I really do not contact students outside of class. So having profiles or being connected through social networking websites would be great.

Another student who valued personal interaction with her professor was Kate. When she discussed the ways in which online classes were different from traditional classes, she talked about personal interactions in an FTF environment. She lamented that she did not have such interactions in her online class and believed that the distance that she at times felt online was in part caused by this disconnection from the teacher. She said:

> I love how I can talk to my professor [in a traditional classroom] before or after the class. We get to know each other so much! We can joke in class and I can relate to her on so many levels. I wish I had the same experience online. I don't expect the teacher to provide tons of personal information, but it would be nice to learn more about her.

Kate seemed to value personal interaction with her professor. She obviously missed the ease with which such interactions occurred in a traditional classroom. She was afraid that in the online environment the lack of personal interaction could be a sign of the teacher not caring about her. She admitted, "Since we are so far from each other [online], the teacher might not care as much about you as there is no personal dimension in this relationship." Thus, in order to feel connected and satisfied with the online class it seems that the students wanted to establish personal communication with their teacher. The participants wanted to learn more about their instructors through a picture and a short biography posted on a website, through emails, and even through social networking sites, such as Facebook or MySpace. Research supports this idea and demonstrates that when instructors develop a rapport with students through personal communications, the

students have a better chance for a successful online learning experience (Marks et al., 2005; Pascarella & Terenzini, 2005).

Developing communicative skills was a feature of student-instructor dialogue that seemed to dominate most interviews, helped erase distance and raised student satisfaction. In both Phase 1 and Phase 4 of the study, students expressed their desire to communicate with their teachers and speak in Russian during their virtual classes. When students used Russian with their peers and had interactions with their professors in the target language, they seemed less isolated and felt an enhanced sense of community (Lamy 2004). Many students expressed concern about their speaking abilities and believed that there should be more time devoted to pronunciation and communication in the synchronous part of the class. Kate said, "I want to have more practice communicating in Russian. When we try to talk online not a lot of it is corrected. When it is close my teacher is gonna be like 'ok' because …well it is just we let things slide." She attributed the lack of sufficient speaking practice to the limitations of the online environment, "There is really no space for small talk. The teacher needs to give us as much in the limited time as she can." Many students seemed to support this idea and believed that the teacher must find ways to involve their students in speaking practice, which would also minimize the teacher-student distance online. Chris, for instance, discussed how communication and online practice of Russian could help him feel less isolated and more happy in the class:

> It really is a matter of distance if the professor is engaging enough and makes you use your language in class, you feel like you are right there in the classroom with them, but if you don't use the language... there is something that you just don't quite get …there is something between you [the student and the instructor]. The real distance is in communication and the practice.

At the end of the course Chris still believed that for a great online instructor, it is very important to engage all students to communicate in Russian. He said:

> The online teacher needs to make students feel connected. [He] should make students be involved in the learning. Just teaching information is one thing… another thing is to have students being involved into learning – everyone gets to participate and speak Russian. They can come up with some group work where you need to speak the language, have the breakout rooms… it is a wonderful tool to make student feel connected.

Therefore, it seems that a good online teacher would understand the importance of practicing and *developing communicative skills* in a foreign language. He/she would realize that through involving his/her students in the online communication, the distance in a DL classroom can be diminished, and the feeling of isolation can be overcome. A good teacher could find ways to engage his/her students in practicing their foreign language, despite the limitations that restricted time and technology create online. Using Chris's words, a bad teacher, on the contrary, "would not emphasize speaking as much."

Another feature of the instructor-student dialogue that affects student satisfaction is *genuine interest in the topic* (La Ganza, 2001, 2004). A teacher's passion for the subject matter can be an important catalyst for a positive student attitude. Teacher enthusiasm has been identified as a prominent behavior that affects student learning (Carlise & Phillips, 1984). The data from my study supports the idea that the teacher's attitude towards the subject matter can be contagious. Rachel said, "When the teacher really likes their subject you can feel it. It makes you want to learn it too." She continued, "I can always tell if they [teachers] are there just to get paid or if they really love what they do." This quality separates a bad teacher from a good one for Alex. He stated, "A bad teacher is one who is not interested in the subject matter being taught. A good teacher is one who is passionate about his topic, this passion is contagious to the students." Alex

pondered on his experience in his class at the end of the semester, "My professor, well, she is Russian, and maybe that's why she likes her subject… she really loves her culture. You can tell from her voice and her intonations." He showed how his teacher's love for the subject matter made him want to learn more about Russian culture, "She told us many interesting stories about the church and the Soviet period. I mean, I read books but you can't learn about it from the books." This quote illustrates the overall attitude of students' towards their teachers' enthusiasm in the classroom. Passion for the subject is considered an attribute of a good teacher which ignited interest in the students and promoted their satisfaction, while its absence is perceived as an undesirable quality in an online instructor. Students believe that the instructor's interest in the subject has the power to awaken their own curiosity for the language they are studying and to increase their motivation.

Showing *respect* (La Ganza, 2001, 2004) also seems to be important for student satisfaction. Several participants addressed the theme of *respect* and agreed that it is an important quality of a good teacher. Students needed to feel respected in order to feel good online and to give *respect* back to their instructors. Kate said, "If the teacher does not respect me or does not show respect…like not even available when I need her… I will not care for the class. I could have learned on my own, from the computer and not be humiliated." She continued, "If I do not know a form, or forgot a word, the teacher can sometimes type it in the chat area to help me instead of like… put me on the spot and embarrass me in front of everyone…" Anne exhibited similar attitudes towards *respect* in the classroom. She said, "A big red flag if the student tells the teacher 'I am falling behind, can you help me?' And the teacher just makes them feel stupid… or if they brush

you off when you have a question." She demonstrated how respect affected her satisfaction with the course:

> It is just horrible when the teacher is disrespectful. It is already difficult to study Russian online. I don't know these people… maybe they are laughing at me behind their computers… but if the teacher jokes at you or is just rude or has this attitude like, 'well…I will not have this students after this semester', - that is not right. Respect is very important especially when it is such an intimate setting [in the online classroom].

Similarly, Jake described how important it was for him to be respected by his teacher. He brought up an interesting point: that manners and etiquette that are traditionally expected as a norm in a regular classroom might be different in the online environment because of the lack of personal communication. He depicted this situation in the following way. He said, "It is easy to get impatient with the student when they don't get the material, and even be rude… because online … it is almost like not even a real student. All you see is the name on the screen." He confessed how his satisfaction with the course connected with this feature of student-instructor dialogue:

> A bad teacher is the one who does not care, who is rude and who uses his power in the classroom… the one who is vicious with grading and makes fun of you in public. A terrible quality if they belittle their students, if the student has a question and the teacher does not address it… They will never learn it. I would not know how to respect such teacher.

In each of these cases, students perceived *respect* as a foundation for a healthy classroom that promoted learning and increased students' motivation. Teachers' respectful attitudes created a comfortable and safe environment for students to work on their language skills and to take risks in class. On the contrary, disrespectful attitudes, such as ignoring students' requests or public embarrassment, decreased students' satisfaction and risk-taking abilities, and also reduced students' respect for their teacher.

Moreover, a feature of student-instructor dialogue that helped increase student satisfaction was the *use of a variety of media* (Johnson & Howell, 2005). The students pointed out that when they were provided with different types of activities, exercises, and tutorials they felt more connected, more satisfied and less isolated online. Kate, for instance, stated, "I like when I have an option either to read a handout or to watch a video or to download a podcast The more variety we have and the more extra resources she gives us, the better we learn!" She continued, "Since we have some limitations online… for example, I can't physically write on the board and talk to my classmates… it is important to have different types of activities." Jake supported this idea by stating, "I like working with the handouts but I also like archived lectures. It makes me feel like I am in a real classroom." He reflected on his online experience during the follow-up interview and stated with regret, "Unfortunately, we did not have too much variety of activities. I wish we had more movies or audio files, like music and stuff."

Use of video during synchronous class activities also helps teachers to bring the class closer to the students and increase their satisfaction (Gorsmire, Morrison, & Van Osdel, 2009). Rachel believed that seeing the facial expressions of the teacher was very important in the classroom. She told me that in a face-to-face class it is easier to follow the teacher's pronunciation just by looking at his/her mouth movement. It is also easier to understand what the teacher feels and whether he/she approves or disapproves of their students' participation. She stated:

> The teacher online is different from the FTF teacher. I think, a bit part of it is not having to see their face expression so it takes away a personal level of communication. But you can still ask questions and get answers. …It would be nice to have live interaction so I can see the face of the professor. It is important to have live video to see the mouth movement and annunciation.

Alex also recalled his experience online and lamented not being able to see his teacher. When he was asked to describe an online teacher he said, "Well… you never see an online teacher…. It is very difficult because in a regular classroom you can see their face." When he was asked what would make him feel connected in the classroom he answered, "It is important to have a video up for feeling connected. My teacher rarely used the video. It is too bad because it makes it easier to repeat new words and work on your pronunciation." The students seemed to believe that teachers' emotions and reactions, as well as their pronunciation of foreign words, could help bring the participants of the online course closer and aid in learning Russian. Therefore, my interviews suggested that *use of video* during synchronous components of the course was very desirable by the students and could compensate for the physical separation and avoid the isolation and the facelessness associated with the DL context.

In addition, a feature of dialogue that related to transcendence of cyber space and that was connected with satisfaction was c*reation of downloadable materials* (Kaminski & Rezabek, 2000). The majority of students in my interviews still preferred a textbook or hard copy handouts to reading from the screen. Despite the fact that all classes in my research used the same textbook, most of the extra materials provided by their teachers were uploaded to the website. Many participants stated that it was difficult to read from the screen and complained that printing numerous pages seemed time consuming and costly. Rachel lamented, "I do not like that there is [sic] no tangible materials, not a lot of hands-on learning!" She told me that because most of the materials were online, she could study at different locations, such as while on the bus or at the school. She did not like to have to log on to the computer and enter her virtual classroom every day.

Sometimes that prevented her from putting in more work when she was away from the computer and was unable to access the materials. She confessed, "I really do not like to have to be on the computer every day!" Later, during our follow-up interview, she admitted that she preferred a more traditional approach to studying (i.e., a book and a workbook) that is usually used in a regular classroom. She said, "It's easier to do work out of a book with a teacher there." Alex also complained about not having downloadable materials. He articulated the difficulty that it presented for him and said, "What is difficult for me to study online is that I like reading from a sheet of paper instead of the screen." He explained why it was difficult for him to work without downloadable materials:

> There is no textbook, well… there is but all activities... everything is online and everything is bulky with the material. I think it would be much better to work from the book, so the student can see everything there without having to print so many pages. Sometimes the lectures ….lecture material we see only after the class.

Alex admitted that he missed traditional pencil and paper exercises where he had tangible materials that he could use to take notes and write on. He said:

> It is nice to have handouts where all information is in one area. Maybe she [the teacher] can send us work sheets or something, as I like reading from the paper, where we can write and send them back to her.

He seemed to be very convinced that having downloadable materials would make his learning experience easier and more like a regular classroom. He suggested:

> I would rather have a book than to print lots of pages… which are not really in depth for me. Having a workbook and a textbook is easier to progress. I do not like the bulkiness of the material. You end up with so much paper which could have been in a much more condensed form… and I would like to have all of the materials together.

Therefore, my study supported Kaminski and Rezabek's (2000) research that found that *the creation of downloadable materials* seems to be strongly desired by the students. It makes online learning more convenient, as the student does not have to be always logged on to the computer and can study in different places. Downloadable materials also allow students to have all important materials put together in a logical progression. Such materials make learning online more similar to learning in a traditional classroom (Kaminski & Rezabek, 2000).

To summarize, several features of dialogue were connected with students' satisfaction with the DL course. Prompt and detailed feedback, accessibility and availability, developing rapport, developing communicative skills, genuine interest in the topic, respect, use of a variety of media, use of video for the synchronous class and creation of downloadable materials seem to be desired by the students. These attributes of dialogue seem to raise student satisfaction. In this section I analyzed the relationships among my three variables in the first half of the course. Quantitative data demonstrated significant correlation that existed among these variables. Qualitative data supported these findings and showed which features of the constructs were particularly important for these correlations. The next section will describe these relationships at the end of the course and will depict how they change in time.

Relationships Between Autonomy, Dialogue and Satisfaction in the Study's Second Half

Despite the fact that autonomy, dialogue and satisfaction demonstrate significant correlations in the first half of the course, this trend is not displayed in survey 2. The relationships between autonomy, dialogue and satisfaction do not seem to be strong at

this stage of the study. These correlations for survey 2 were not statistically significant at an alpha level of 0.05 and, thus, there is no valid evidence of correlations being different from zero for survey 2 data overall. In order to see if this discrepancy between first and second survey depended on the outside factors, I tried to run various tests. In correlation analysis by school, I found a different pattern of associations. While School 2 students still have similar associations for survey 2 for correlation between satisfaction and autonomy ($\rho = 0.32$) and between satisfaction and student-instructor dialogue ($\rho = 0.37$), students in School 1 do not show the same associations, despite the fact that these associations were similar for both schools in the survey 1. This means that in both schools the relationships between main variables declined, but in School 1 this resulted in a more dramatic drop. I also wanted to investigate whether addition of minor students in School 1 could have caused these results. The correlation analyses by age group (17 and younger versus all others) did not show any patterns. Therefore, I conclude that differences in age between the two schools were not the reason for such discrepancy.

Then I wanted to compare my newly developed scales with the existing scales in order to rule out the possibility that my additional items could have been the cause of this inconsistency. The results for other scales that were not of primary focus for my research, but that were validated by the original DELES, exhibit similar behavior (see Table 26). There is a significant increase in the mean scores in all other scales. Collaboration increased from ($\bar{x}$= 17.13, SD= 6.09) in the middle of the course to ($\bar{x}$= 21.08, SD=4.5) at the end of the course. Personal relevance also grew from ($\bar{x}$=22.42, SD = 5.42) in the middle of the course to ($\bar{x}$=25.70, SD = 5.23) at the end of the course. Authentic learning

rose from ($\bar{x}$= 16.79, SD= 4.49) to ($\bar{x}$= 20.11, SD = 3.53). Active learning also climbed from ($\bar{x}$= 11.45, SD = 2.42) to ($\bar{x}$= 12.49, SD =1.59). The anomaly that I observed in the correlation analysis for my three main scales (autonomy, student-instructor dialogue, and satisfaction) is also present in these validated scales. The correlation relationships follow a similar pattern (i.e., the survey 1 data displayed significant positive correlations between the main variables, but this was not seen in survey 2). I show statistically significant positive correlations between satisfaction and each of the scales for collaboration, personal relevance, authentic learning, and active learning in survey 1.

Table 26. Descriptive Statistics for Survey 1 and Survey 2 Scales

	Survey 1					Survey 2				
Scale	**Mean**	**Std Dev**	**Med**	**Min**	**Max**	**Mean**	**Std Dev**	**Med**	**Min**	**Max**
DE Satisfaction	24.76	6.88	23.5	13.0	40.0	28.68	5.25	30.0	8.0	39.0
Experience in course	34.89	4.60	36.0	20.0	40.0	34.43	4.84	36.0	19.0	40.0
Collaboration	17.13	6.09	17.5	6.0	28.0	21.08	4.49	22.0	11.0	30.0
Personal Relevance	22.42	5.42	22.5	12.0	35.0	25.70	5.23	27.0	7.0	35.0
Authentic Learning	16.79	4.49	16.5	5.0	25.0	20.11	3.53	21.0	9.0	25.0
Active Learning	11.45	2.42	12.0	5.0	15.0	12.49	1.59	12.0	8.0	15.0
Autonomy (q30-34)	20.76	3.27	21.0	15.0	25.0	21.95	1.91	22.0	15.0	25.0
Dialogue, rev	48.42	7.97	48.0	21.0	60.0	51.68	6.58	54.0	31.0	60.0
Dialogue-communication, interrelation, rev	29.71	4.27	30.0	16.0	35.0	30.86	3.95	32.0	19.0	37.0
Dialogue-transcendence of cyber space, rev	18.71	4.18	19.0	5.0	25.0	20.81	3.24	21.0	11.0	25.0

However, in the survey 2 these correlations are not statistically significant at an alpha level of 0.05 and, thus, there is no valid evidence of correlations being different from zero for survey 2 data overall. Age differences (minors versus adults) did not account for this phenomenon, similar to the results for my main scales of interest. Thus, I can conclude that the incongruity of the results is consistent in both the new scales and the validated scales from the original survey. Since the same pattern is exhibited in the scales from the validated instrument I assume that the new scales themselves did not cause this discrepancy.

I also decided to explore if the discrepancy of the results between the two schools may have been related to *technical problems* that occurred at the end of the course in School 1 and could have affected students' satisfaction (Bolliger & Martindale, 2004) and dialogue. Students from School 1 who participated in the qualitative surveys said that technical issues increased towards the end of the course. For instance, Jake reported in his interview at the end of the course, "…but then the problems started happening with Wimba. We lost, I believe, 5 or 6 classes because no one could log into the class… or it would kick you out in the middle of the class… that was really frustrating…" Despite his very autonomous learning style and his preference for learning alone, Jake expressed clear disappointment with this technology at the end of the course. He felt that he lost a lot of valuable time because of the technical difficulties, and when he talked about it, he was irritated and upset. He believed that these difficulties increased towards the end of the course. Stacy also stated that problems with technology accelerated towards the end of the class. Compared to the beginning of the course, Stacy's excitement about technology definitely decreased. At the beginning she was very happy to study online.

She believed that studying online made her "look smart" and referred to online learning as an "advanced form of learning" because of the technological elements of this context. When talking about technology she seemed happy and even proud. She said, "My most favorite thing about online learning is the technology. It is the first time I had a headset, the first time I used Wimba… we just do a lot online. It is never actually in paper. I actually love it! It is cooler as opposed to the face-to-face class!" However, towards the end of the course in our follow up interviews from Phase 4, she stated:

> I really liked using technology in my class. I guess… at the same time I did not like to have technical difficulties that we had at the end of the course…. It is challenging as it is …..to study online… as you need to do a lot on your own and you need to pace yourself and use time management skills a lot. … but especially when Wimba was acting out and we could not even log into the class.. I mean… that was not cool at all…

Clearly, Stacy's and Jake's attitudes towards technology shifted from the beginning of the class to its end. If in the beginning, technology was seen as attractive, but towards the end of the class, the students seemed very disappointed, irritated, and frustrated with the technical difficulties that seemed to increase in the second half of the course.

Based on the interviews, therefore, I decided to investigate whether these technical issues could indeed account for the anomaly found in the second survey. For this, I looked at the behavior of question # 61 that dealt with students' concerns with technical problems and course delivery. Table 27 provides some evidence that more students in School 1 perceived problems with technology at the end of the course than students in School 2.

However, despite the fact that these technical issues increased, student satisfaction with the course, dialogue and autonomy increased nevertheless. Therefore, there is no compelling evidence to attribute the change in the correlations between the two schools

in survey 1 and survey 2 to the technical problems experienced and reported by the students in School 1.

Table 27. Question 61 "Technical problems are rare online"

Question 61	School 1		School 2	
Survey 1	Frequency	Percent	Frequency	Percent
Agree	7	25.93	6	54.55
Survey 2	5	18.52	5	50
Agree				

As I showed in Table 27, in the first survey only 26% of the students from School 1 agreed that technical problems are rare online compared to 56% of the students from School 2. In the second survey even fewer students agreed that technical issues were rare in School 1 compared to 50% of the students in School 2. Such technical problems experienced by the students in School 1could have changed the patterns of communication with students. However, it must be noted that the survey data demonstrated that satisfaction, autonomy, and student-instructor dialogue all increased over time. Therefore, there is no evidence to suggest that the technical problems were related to the observed change in correlation. The personalities and methodologies of the teachers at the two schools and the different educational climates in the schools could have affected my results.

Because I wanted to explore in more depth the relationship among my scales of interest over time, I ran correlation analysis for change. Table 28 includes Spearman correlations for pairwise changes in my main three scales. As I can show from the data, correlations are relatively high and statistically significant. Therefore, I can state with some certainty that an increase in autonomy over time occurs with a corresponding increase in satisfaction. An increase in autonomy also happens with a corresponding increase in student-instructor dialogue, while an increase in student-instructor dialogue occurs with a corresponding increase in student satisfaction. For example, change in score from survey 1 to survey 2 for satisfaction and change in score for autonomy have correlation=0.61, it means that increase over time in autonomy corresponds to increase in satisfaction, they have statistically significant positive association. The reasons for seeing associations for survey 1 and stronger associations for change over time, but not observing them in survey 2, could be various. For instance, to some extent, because the values of satisfaction and interaction with professor scales are skewed to higher values for survey 2 could be one such reason. Further investigations of this statement are needed.

Table 28. Spearman Correlations for
Change in Scales (Survey 2- Survey 1)

-#	Scale	1	2	3
1	Change in DE Satisfaction	1.00		
2	Change in Autonomy	0.61**	1.00	
3	Change in - Dialog	0.56**	0.38*	1.00

*-p-value<0.05;**- -p-value<0.01

Change Over Time in Autonomy, Dialogue and Satisfaction

In order to see whether the changes occurred throughout the course in all three variables, paired t-tests were run and the findings are found in Table 29, which demonstrates a statistically significant increase in mean scores for satisfaction (mean difference = 3.89, $t(36) = 3.29$, $p < 0.01$). There are also marginally significant increases in autonomy scores (mean difference = 1.22, $t(36) = 1.92$, $p < 0.1$) and student-instructor dialogue (mean difference = 3.16, $t(36) = 1.97$, $p < 0.1$). I also used qualitative data to analyze changes that occurred in each of my main variable.

Table 29. Pairwise Change
(Survey 2-Survey 1) for Scales (N=37)
and Tests of Significance of Change

Scale	Mean Diff	Std Dev Diff	t –stat (36)	t-test p-value	Sign test p-value
DE Satisfaction	3.89	7.19	3.29	0.002	0.035
Experience in course	-0.35	5.97	-.36	0.723	1.000
Collaboration	3.78	6.92	3.33	0.002	0.002
Personal Relevance	3.08	6.77	2.77	0.009	0.006
Authentic Learning	3.22	5.53	3.54	0.001	0.002
Active Learning	1.05	2.94	2.18	0.036	0.061
Autonomy	1.22	3.85	1.92	0.063	0.487
Dialogue, rev	3.16	10.43	1.97	0.073	0.029
Dialogue-communication, interrelation, rev	1.11	5.97	1.26	0.266	0.099
Dialogue-transcendence of cyber space, rev	2.05	5.08	2.46	0.019	0.041

Both parametric t-test for pairwise difference between Survey 2 and Survey 1 and non-parametric sign test results are reported.

Change Over Time in Autonomy

We can also observe increase in all three variables over time. For instance, quantitative data in Table 18 and 25 demonstrate that autonomy at the end of the course ($\bar{x}$= 21.95, SD = 1.91) shows a marginally significant increase from the middle of the course ($\bar{x}$= 20.76, SD = 3.27). My qualitative data support these results. At the beginning of the course in Phase 1, students seemed to rely greatly on communicating with their teachers. Many of them believed that interaction between the student and the teacher needed to happen on a daily basis. For example, Pete said, "Well, I think it is very important that the teacher talks to you at least once a day… even an email to just checking if we are doing ok would be good." Rachel confirmed, "I think that I need to communicate with my teacher once a day. I mean… I don't expect them to write to me at two o'clock at night… but they need to show you that they are there for you." Almost all students seemed to lean on their teachers and depended on their communication much more at the beginning of the course than at the end of the course. Thus, in our follow up interview Pete said, "Checking in once a week with the professor is fine." Jake expressed the same belief at the end of the course. He said, "I would not expect a teacher just to write an email to me. But whenever I need clarification or help, we need to communicate. I think once or twice a week is more than enough." Pete and Jake suggested weekly emails as an optimal rate for communication with their teacher. Rachel believed that there was no need for communication if there was no problem. She said:

> I don't believe that communication with an online teacher should be every day. But whenever [a] question arises or whenever assignments are due, then there should be communication going on. But I don't believe there should be a set time for how often to communicate. I think email is necessary, but if the teacher needs to address something, then the student should be able to [be] clear why they got

> this grade on this assignment… but there should not be any reason for other types of communication outside of classroom.

Rachel's statement was very reflective of the overall attitude of the interview participants. Most of the participants at the end of the course did not require as much interaction with their professor as they did before. They seemed more self-sufficient and confident at the end of the course than at the beginning of the course and were much more in control of their learning. They believed that general interaction could occur once or twice a week via email and expressed less need for personal communication that was not related to class. Many students also described themselves as more autonomous learners at the end of the course. Alex, for instance, believed at the beginning of the course that online learning was a very isolated experience. He said, "It [online learning] is all about you… You need to work on your own and solve your own problems." His description of this aspect of DL was marked with disappointment and even sadness. I could even sense a hint of fear and doubt about the chances for his personal success in his voice. In our follow up interview, however, Alex stated, "The person needs to have enough motivation to study on your own. It needs to be a person who has a certain level of independence. I am blessed that I am very independent." At the end of the course, he still believed that online learning is often a lonely experience. However, he was much more confident in his ability to succeed in this environment because of his extreme independence. Similarly, Anne exhibited higher level of autonomy at the end of the course. She reflected on her experience in our follow-up interviews:

> I think what made me successful in studying online is that I try to keep the set schedule… you have a presentation, get it done, a test, get it done! In order to be successful you need to get things done on time. I also printed all materials and referred to them daily. That helped me memorize grammatical forms and expand my vocabulary…

Anne's discussion of her success reflected her developed metacognitive skill, as she clearly knew what worked for her in studying a foreign language. She also demonstrated advanced time management skills and control of her learning. She had the ability to self-direct and to prioritize her life. All of these qualities were associated with a highly autonomous learner. Chris's autonomy was also elevated at the end of the class. At the beginning of the course, he said, "Online learning… you need to do things on your own... I am not sure I have enough self-motivation…. I don't like having to be on the computer every day." It seemed that Chris developed high motivation and was able to self-direct his learning by the end of the course. If at the beginning, he doubted his ability to stay interested in class and study on his own, by the end of the semester, he showed that his passion and his perseverance made him successful in the online context. He also found a way to deal with his least preferred aspect of DL (i.e., the daily requirement to use the computer). He showed that he was in control of his learning, and he made the class work for him. He printed out all necessary materials in order to avoid the limitations dictated by the online context. Such behavior is a mark of a highly autonomous learner.

Therefore, the decreased need for student-instructor interaction over time shows that students were more comfortable learning on their own at the end of the course as compared to the beginning of the semester. They were more self-reliant and were more confident in their abilities to succeed in DL. They also seemed to be more comfortable with the learning tools and with the educational platform. When describing the reasons for their success, students showed that through their online course they gained motivation and insight into their own learning styles. They understood how to make the online environment work for them and utilized their metacognitive skills to create the most

optimal context for their success. Students also demonstrated increased responsibility for their learning experience.

While my quantitative findings show only a marginal increase in learner autonomy, the follow-up interviews in Phase 4 and their comparison with the initial interviews from Phase 1 reveal a much deeper change in autonomy that occurred throughout the semester. Learner autonomy did not only increase, but its quality changed, as each participant shaped their views and attitudes about DL and developed their unique techniques that made their learning successful in the online context. My qualitative data, therefore, enhanced my understanding of the quantitative data and the underlying constructs.

Change Over Time in Student-Instructor Dialogue

The second main variable, student-instructor dialogue, also shows change between the beginning and the end of the course. Quantitative data displayed in Table 18 demonstrates increased dialogue from the middle of the course ($\bar{x}$ = 48.42, SD = 7.97) to the end of the course ($\bar{x}$ = 51.68, SD = 6.58).Qualitative data, however, provides slightly contradicting results. As I stated above, the majority of learners expressed a decreased need for student-instructor dialogue by the end of the course when compared with the beginning of the course. In the beginning of the semester, most participants stated that they relied on almost daily interactions with their online instructors. At the end of the course, the majority of students preferred limiting communication with their teachers to a weekly interaction. The qualitative data suggest, however, that there was a difference between students' perceived need for dialogue and the actual occurrence of such dialogue

in real life. Some students reported at the end of the course that their teacher still sent them frequent emails and reminders. For instance, Chris said, "My teacher always sends us reminders. It really helps and makes me keep up with all important activities." Pete also indicated that his instructor communicates frequently through emails. He stated, "I get an email from her [instructor] several times a week." Similarly, Alex admitted that his teacher regularly contacted him:

> I like to have feedback from my professor, to have more detailed comments on my assignments but I am ok with the help I am provided….My professor online is doing a great job answering the email. Emails are answered quickly and if you need the feedback for your homework, it is always within a couple of days.

These statements indicate that the dialogue did indeed increased by the end of the course. If in the beginning of the semester, the majority of the students described DL as a self-study correspondence course where communication with instructors occurred purely through emails, towards the end of the semester students depicted their online classes as highly interactive. Teachers seemed to utilize various strategies, besides emails, to involve each student, such as engaging everyone in the synchronous activities, providing background information, and using collaborative tasks. For instance, Jake said, "My teacher adds some cultural aspect that helps you feel connected… you understand why you are learning…it gives you more background for the language. You are not just learning words and grammar." He added, "I liked working in breakout rooms. It lets you connect with other students and feel connected." Rachel believed that her teacher provided very good explanations of the difficult materials in class and created a very organized classroom in order to ease her students' learning experience. She described communication with her online instructor this way, "She clearly explained the subject in class, like if the student had a question during the class time. Our teacher contacted us

outside of class [and] organized [classes] so the students do not have questions about where to find materials they need." Anne suggested that her instructor's interaction made her feel like she was taking a traditional class. She said, "My teacher was friendly and let the students interact with each other… She made the online class feel like a traditional classroom." When discussing the interaction with her online professor Anne stated:

> She [online teacher] makes us, students, feel connected and makes students be involved in the learning. Just teaching information is one thing. Another thing is to have students being involved. Everyone gets to participate in learning, as well as group work. She has the breakout rooms… it is a wonderful tool to make student feel connected.

These statements show that many students had a very high level of interaction with their teacher during the semester and that student-instructor dialogue increased throughout the course. In the beginning of the study, students reported feeling disengaged and compared their learning to self-study. At the end of the semester despite their decreased need for a greater quantity of interactions with their online professor, the quality of such interactions helped them to feel connected and engaged in the course. This communication even made some of them feel like they were in an FTF classroom. Based on the quantitative surveys and the qualitative interview data, the dialogue between teacher and students actually increased, while students' need for it decreased.

Change Over Time in Learner Satisfaction

Looking at Table 18, there is an observed increase of satisfaction from the middle of the course ($\bar{x}$ = 24.76, SD = 6.88) to the end of the course ($\bar{x}$ = 28.68, SD = 5.25). Similar results are found in my qualitative data. Several students experienced increases in positive attitudes towards distance learning throughout the course. For instance, Stacy reported:

> Online class can be a little bit weird. At first it is a little scary, but you get used to working on your own. At first, I did not know what to expect. I was really excited but I was also confused a lot…It takes more time…. to talk to the teacher… so I did not know how successful I was gonna be… but you get used to it… but, in general, it is great.

Stacy, from the very beginning, demonstrated her interest in learning online. She enjoyed using different tools and computer-assisted technology. However, initially she was doubtful of the effectiveness of the course and was not sure if she was going to succeed in such an environment. Having gone through the course, however, increased her positive outlook on DL. At the end of the course in Phase 4 interviews, she believed that learning online made her look smart and elevated her image among her peers. She said, "I like taking classes online just 'cause I can say that I am taking online classes. It is a higher level….something you cannot learn by yourself." She believed that online classes were much harder and were not for everyone. Taking an online class made her feel special and important.

Alex also demonstrated a big shift towards enjoying his online course. In the beginning, he referred to the online learning as "sacrifice." As was discussed earlier, in his Phase 1 interview, he believed that online learning excluded communication with others and suggested that those who start this form of education have to give up their need for interacting with others. By the end of the course during our follow up interviews, he showed a changed attitude. He said:

> The convenience of online learning is the definite advantage… but the person needs to have enough motivation to study on your own… even though there are ways to interact with your peers if you want to. You have their email address, and you can chat online or use Skype or Wimba… it really was not that bad… and of course being able to take a class when I can still have a full time job is amazing.

Even though he still believed that online learning was a more isolating experience than FTF, he acknowledged that there were opportunities for interaction with others in the online context, contrary to his beliefs at the beginning of the course when he predicted that such interaction was not possible. It also seemed that the convenience of this form of education made him grow even fonder of it. He said, "I don't feel like I learned less because I took this class online." Thus, he felt that his online course was compatible with an FTF course in terms of the knowledge that he gained. Being able to learn as much and maintain a full-time job made Alex very accepting of this new learning environment. Likewise, Anne showed excitement about learning online. At the end of the course she said, "I like having class online. It is different." She also explained why she liked online learning:

> My favorite thing about online learning is the experience as a whole... It is something really neat… how you can go to this class, meet people that you have never seen before from all places… and you are all learning the same thing... so it connects you all together. And actually learning is a neat experience. You take all of these tests, and you have all of these power points, and you can print out all of these slides and have all of these materials in one binder and have with you. And you can study it. It is really cool to have this online experience as opposed to the class [traditional].

Anne's description of online learning demonstrates her enthusiasm towards several aspects of this context. First, she enjoyed being able to study with people from all over the country, who she would have never gotten to know otherwise. Second, she enjoyed the technological aspects of DL, such as using the learning management system and the internet-based activities. Third, she enjoyed the availability of the online materials and the ability to access them at any time. At the end of the course she said, "I want to take all classes online now!" Therefore, in our follow-up interview she said that she preferred distance education to the traditional environment.

Even in the beginning of the course students viewed DL as *exciting* and *stimulating* (Hiltz, 1993; Navarro, 2000). To begin, Stacy described her experience as an online learner in this manner:

> There are so many interesting tools and I love the fact that I can take quizzes online and send a sound [voice] email to other students…. It is so cool to be able to connect to other students that are like… miles away from you!

Stacy's obvious excitement about DL is caused by the perceived sophistication of this educational platform where through the use of innovative technologies she "feels smarter" and has a higher self-image. Stacy also enjoyed the ability to connect with different people from various parts of the world. Much like Stacy, Kate expressed her feelings towards the use of technology in a positive manner. She also believed that DL made her feel smarter. She stated," I love to use headphones and talk online…it makes me feel smart because I am using technology and I love it!" Similarly, Jake found online learning *exciting* and *stimulating* but for other reasons. He thought that online learning provided more individualization and more opportunities for practice a new language. He stated:

> I like that there are small classes [online]. I like a lot of closeness with my teachers and that it is a small class. It is a lot more personal because you have a small class and you have a lot more opportunities to volunteer in class….. as questions and it is a lot more personal. I think it is easier to learn that way.

In Phase 4 Jake reflected on his online experience and expressed his view of DL in a more sophisticated manner. He believed that the small class size and the use of various media promoted differentiation online and, thus, allowed students with various learning styles to be equally engaged and to succeed. He said:

> You know…I like that the classes are small... I feel like I always participate in class… and like … all students actually do…and if I like listening to Russian music and learn the language that way… I can do it [online] or if I want to watch

> a movie and learn my grammar that way it is possible… you know... different students have different needs and interests. This way we don't just do the same exercise together but can choose activities that interest us… so we can be more successful".

Alex's words resonated with Jake's feelings. At the end of the course Alex restated his feelings about DL. He said, "It is really *exciting* to learn online. You feel like the class is tailored to your needs." Alex believed that online learning provided more opportunities for differentiation than a traditional classroom and he really liked that about DL.

At the beginning of the course it seemed *pace* of the course and *workload* were important to students' satisfaction with DL (Bowman, 2001; Burnett, 2004; Spangle et al., 2004). Many students stated that online classes seemed to move faster than FTF classes. Kate described her experience in the following way, "Online learning feels faster because I always feel like I am trying to catch up to what's happening." She complained about constantly being behind in her projects and attributed this problem to the faster *pace* of the DL course. She could not really pinpoint the reason for feeling that this was a faster *pace*, but she said that she definitely did not feel the same way in an FTF classroom. She stated, "I am not sure what it is… but I never felt like this before… time literally flies online!" Pete resonated with this opinion. He mentioned the faster speed of online coursework, and like Kate, he complained about the constant fear of falling behind. He said:

> I am afraid not to keep up with pace. Like if you forgot something or did not understand something… we are moving on and you will just never really learn it or really understand it… It is like you miss one class and it is…. [sigh] … gone… you are overwhelmed and have to move to another unit… There is really no time to slow down and catch a breath…

Some students explained that such a perceived fast *pace* may have been related the large *workload* in a DL class (Bowman, 2001; Burnett, 2004; Spangle et al., 2004)

Most students in felt that the *workload* is much higher online because of the technology. The *workload* issue has been noted by many researchers who have found that students view online classes as more time-consuming than traditional classes (Hara & Kling, 2000). Qualitative responses especially in the first phase of the study indicated that students were overwhelmed with the required work in their DL classes. Alex, for instance, expressed that there are more expectations of students in an online class than in an FTF classroom. He said, "There are additional demands. I do not even have time to go back and review, as I need to move forward into the next week." He further talked about his feelings towards DL and in both interviews and described it as a "commitment" and a "challenge." He said:

> DL is a commitment and a challenge. The person has to be prepared to do quite a bit of homework. In that way it may be harder than actual classroom. In a physical classroom some students get by without doing too much work outside of classroom, but in a distance class it is impossible. You have so much work… you can barely catch up and you cannot afford to skip a class.

Pete expressed a similar view of DL. He said, "There is more work online. There is [sic] a lot of assignments. I fear that I am going to fall behind because of all work." At the end of the course in our follow-up interview, he confessed, "It was really hard… I think there was just too much work… especially in the beginning."

In the beginning of the course the students also talked about *distractions* online and complained about not being able to focus on the subject matter as much. These feelings caused negative attitudes toward DL. The availability of many resources online in itself was very distracting for many students. Pete, for instance, admitted that he often found his mind wandering in a traditional classroom. However, online he seemed to be

constantly distracted. He stated, "I find it hard to concentrate when I am on the computer." He continued:

> I get really distracted. Sometimes when I am working online I will put like a TV show playing on background. So the problem is that I am trying to do both of those things at once and I'll pay more attention to what's going on on [sic] the background, instead of actually doing my homework. I know I shouldn't be doing that but I can't help it. It is just so tempting...

Pete confessed that even during a synchronous class he was not fully present in the online environment. He said that often he checked his email or his Facebook postings or even watched his favorite shows. Stacy also confessed using Facebook or checking her email during synchronous classes or whenever she was doing her homework. She understood that this distracted her from the class and impeded her learning but said that it was impossible to resist with so many options easily available online. She stated:

> When I take online Russian it is close to Facebook…. so sometimes I get distracted during the class… and then you are having a hard time in class because you missed some important information… like a part of the lecture or like… a rule, or something… When I work on my own, it is also hard to be focused. Since I am on the compute I can always tell myself: "Wait… I need to check my email" and then I check my email for an hour or so. There are a lot of distractions on the internet.

The examples above demonstrate that some students were often interrupted while learning online. For many learners, it was difficult to dedicate efforts solely to the subject matter and avoid chatting, social networking, and interactive gaming that were just one click away. Many students admitted that even in their asynchronous classes they multi-tasked all the time. They understood that these distractions affected their performance and impeded their learning of a new language, but they did it anyway.

However, it seems that certain features of online environment helped overcome numerous distractions and even technical difficulties described earlier. Therefore, it

seems that despite all challenges, the students extremely appreciated emotional comfort, flexibility and convenience of DL which helped them raise their overall satisfaction with this educational context at the end of the course. For instance, in my phase 4 interviews, most participants believed that DL provided emotional *comfort* (Burnett, 2001, Bolliger & Martindale, 2004) for them and, therefore, they felt good about this characteristic of the online environment. Students generally agreed that DL created a safer and more comfortable environment for them, as they were not facing their peers and could hide behind the screen if they did not feel competent. These findings support research on DL that has demonstrated that some students dislike being called on by a teacher or being put on the spot in FTF classrooms (Hudson & Bruckman, 2002; Warschauer, 1997). For instance, Rachel stated, "There is anonymity. If I struggle I do not feel embarrassed as when I am in class, and everyone can see me. If I mess up, it is okay, not as socially embarrassing." She also confessed to feeling less stressed out online. She said that she did not need to see other students' reactions to her answers in class. She said, "I am happy I can be in my own space when I am called by the teacher… I don't like being put on the spot." Similarly, Jake expressed his *comfort* online. He said, "You have a little bit of distance, so it is a little bit more calming than having the pressure of the teacher being right there." Like his peers, he believed that being physically removed from the peers allowed him to feel less self-conscious about his performance. Kate also believed that having a physical separation from her peers and her teacher was very advantageous for her. She stated:

> I feel less stress online to a certain extent... When we are in class and I need to speak….. Naturally, sometimes it is stressful, but online there is not the same kind of anxiety. Being online is kind of comfortable as I can think what I am saying before I am saying it. Or if I need to ask for help, I do not feel the same stress…I

> feel that an online class feels pretty relaxed because in this class no one can see you. So you can be in your pajamas eating cookies. So it's a really relaxed environment.

Kate pointed out that being able to take her time to analyze her teacher's questions and not to be rushed to figure out the answer was very comforting for her. This allowed her to come up with responses that she would not have had were she in a traditional classroom, where the answer was expected immediately. She also believed that studying from home or from a familiar environment provided her with a feeling of safety, which made learning more enjoyable and relaxing. In summary, physical distance in the online environment was welcomed by many students because it allowed them to avoid social anxiety and public embarrassment and made them feel safer and more relaxed (i.e., *emotional comfort*) during the class.

Convenience and flexibility of DL seemed to overcome students' fear of technology and made this environment attractive to them (Burnett, 2004; Spangle, et al, 2002). They enjoyed the fact that they were not tied to a specific location. They could continue working and living far from campus while taking their classes. In my interviews from both Phase 1 and Phase 4, *flexibility and convenience* were the number one factors cited by students as the reason for choosing their courses online, but at the end of the course these features seemed to be even more important. For example, Alex shared his story with me at the end of the course and mentioned that it was difficult to be back at school at his age and be in the role of a student. He said:

> Not having to go to classes is a big advantage for me 'cause I live in a small town which is great ways from the university that teaches Russian, so I can do it without having to take off work. I love Russian and I have my personal reasons for studying it. But I can't quit my job or travel… and I have a wife. So it is great that I can take a class online…and still work and be with my wife.

Pete supported this statement. At the end of the semester when he was asked about the favorite part of learning online, he said, "Convenience…. definitely convenience of it [online learning]." Kate also liked the fact that she could schedule her class around her work hours. She said "You can do as much and as little as you want during the week. I work, so I do most of my studies on the week-ends." She also liked not needing to go to class. She could stay in her apartment and still attend her class. She stated, "I can take it in my room or anywhere, it is very convenient!" Moreover, Kate believed that she had missed fewer classes in a DL environment than she would have in an FTF setting. She maintained:

> If you are sick and you cannot go to class, you miss this lesson [in a FTF] but in the online classroom you can be there, 'cause if you sneeze, you will not contaminate anyone, and if you cough, no one can hear you. That is very convenient. I think that students online miss less classes because of that. It is just the coolest thing. I can be here in my pajamas, being comfortable even if it is raining outside… and I don't need to go anywhere…

Therefore, when asked about their favorite feature of studying online, every participant mentioned *convenience and flexibility* of the online environment. They enjoyed the fact that they could take classes offered by universities far away without having to move. Students benefited from being able to fit their studies into their busy schedules. They could choose when to study and how much to study on a given day. *Convenience and flexibility* of the courses were the most favorable features of the online learning environment. It seemed to be even more powerful than *technical difficulties*.

These examples demonstrate an increased satisfaction with online learning among the participants of my interviews. Online learning was often seen as alien, scary, and confusing in the beginning. At the end of the semester, however, students seemed to be more comfortable with this experience. They learned how to appreciate the advantages

that it brings. Thus, the convenience and the ability to work at their preferred time, pace, and place are definite benefits of this form of education. Despite reported technical problems, internet-based exercises, interactive activities, and tutorials seemed engaging and even created a desired image for the students. The ability to communicate with people from all over the country and even from all over the world seemed like a definite plus to the participants. In conclusion, my qualitative data support the quantitative results and I can conclude that student satisfaction increased throughout the course.

In conclusion, both quantitative and qualitative data show an increase in scores for all three main variables in my study. Student satisfaction with their online classes significantly increased over time. As the mean scores rose, students reported deeper feelings of connection and involvement with the course, and some of them even demonstrated their preference for DL. The increase in autonomy is demonstrated by quantitative data as well as by students' reflections on their learning experiences during the interviews. The students seemed to develop higher order self-reliance strategies and metacognitive skills. As their autonomy grew, their need for the outside support and reliance on their teachers at the academic level decreased. Both quantitative and qualitative data support that student-instructor dialogue also increased by the end of the course.

Conclusions

In this chapter, I have discussed the results of the study as they relate to my main research questions. I described the relationships among autonomy, dialogue, and satisfaction and demonstrated how they change over time. Having both types of data allowed deeper exploration of the relationship that existed among my main variables and

better understanding of their transformation over the course of this study. My first two phases of the study confirmed that significant association existed among my variables in the first half of the study. Qualitative data further demonstrated which features of autonomy, dialogue and satisfaction were related to my main constructs. My two last phases of the study revealed that the relationships changed. Both quantitative and qualitative data support an increase in all constructs. We see that while the quantitative data show a slight increase in autonomy, the qualitative data provide a much deeper understanding of how this construct changed over time. Likewise, dialogue increased throughout the course. Student satisfaction shows significant increase and demonstrates that even those students, who were more resistant to this educational setting at the beginning of the class, became fonder of it by the end of the semester. In the final chapter of my dissertation, I will include a summary of the results of this study, describe the implications of my conclusions, and provide suggestions for its practical application to FL DL. I will also discuss the possible significance of my study, its limitations and offer directions for future research.

CHAPTER V

CONCLUSIONS

The purpose of this study was to explore student perceptions of autonomy, student-instructor dialogue (my two independent variables) and student satisfaction (my dependent variable) in a web-based distance-learning Russian classroom. A mixed methods Exploratory Model with the elements of an Explanatory Model was utilized to provide for the enhancement of sequential quantitative and qualitative instruments and to better understand the relationships among these main three variables. The theoretical framework for my study was based on Transactional Distance Theory by Moore (1991, 2006, 2007), according to which transactional distance is not a physical, but a perceived distance that is based on the interplay of three components: student autonomy, student-instructor dialogue, and structure. However, I found the constructs of dialogue and autonomy to be most interesting, based in part on my own experience designing and teaching online courses, and in part based on the ever-changing and evolving technologies for online education. The current state-of-the-art online DL platforms are extremely powerful and flexible, allowing for a great deal of content control and interaction between teacher and students. Yet, the variable that teachers of DL course control most are those of dialogue and autonomy. Thus, my sample, from two schools used the same online education platform (i.e., the same structure), to control that construct, allowing me to investigate my variables of interest as they relate to student satisfaction.

Both qualitative and quantitative data were collected to study these variables in depth. The qualitative interviews in Phase 1 of the study were designed to explore the aforementioned constructs and to enhance the survey instrument administered in the subsequent quantitative phases. The enhanced DELES was used in the Phase 2 of the study to see whether any generalizations could be drawn from the data. The same survey instrument was used in the Phase 3 of the study.

A secondary purpose of the study was to investigate how the three main variables and their relationships among each other change over time. The addition of the second quantitative survey in Phase 3 and the follow-up qualitative interviews in Phase 4 helped reveal how each of the constructs that I studied changed throughout the course and demonstrates that student autonomy, dialogue, and satisfaction increased by the end of the semester. The data demonstrate that the relationships among these variables were strong at the middle point of the semester but were almost non-existent at the end of the course. This chapter serves as a summary of my study's results and their connection to existing theory and literature. Since my research questions deal mainly with the relationships among learner autonomy, student-instructor dialogue, and student satisfaction, I have organized this chapter accordingly. My research questions are discussed here as they relate to each variable under investigation. The specific topics and their corresponding research questions that are covered in this chapter include:

1. Learner autonomy and student-instructor dialogue (RQ1)
2. Learner autonomy and learner satisfaction (RQ2)
3. Student-instructor dialogue and learner satisfaction (RQ3)

This study helps shed some light into the nature of student autonomy and student-instructor dialogue, constructs that still do not find agreed upon definitions in the literature on FL DL. Therefore, I will discuss some of the findings and insights that I discovered during the course of this study that can add to the existing definitions of autonomy and dialogue in the FL DL field. I will also provide some practical suggestions for DL instructors, students, and program developers. In addition, I will discuss the significance of this research and its contribution to Transactional Distance Theory and mixed methods research. I will conclude this chapter with a discussion of my study's limitations and make suggestions for further research.

Learner Autonomy and Student-Instructor Dialogue

My first research question pertains to autonomy and its relation to dialogue, about which I can now discuss my findings and make some conclusions.

> *RQ1: What is the relationship between perceived learner autonomy and student perception of instructor-student dialogue? To what extent does it change throughout the course?*

My first question was to look at the relationship between perceived learner autonomy and student perception of instructor-student dialogue and discuss how this relationship changed from the beginning to the end of the DL course. In the middle of the course, there was a statistically significant positive correlation between perceived learner autonomy and student perception of instructor-student dialogue ($p = 0.46$). This gives me some evidence to state that an increased level of student-instructor dialogue is associated with an increase in perceived learner autonomy. These findings support Moore's Transactional Distance Theory (1993). As I discussed in Chapter II, and according to

Moore, autonomy and dialogue are highly correlated. As it was discovered by Moore (1991, 1993) and Saba (1988, 1994), an increase in the level of learner control increases the level of dialogue, which in turn decreases the level of transactional distance. However, I found that the relationship between autonomy and student-instructor dialogue at the end of the course was non-existent. The dynamic nature of the relationship between autonomy and dialogue was observed by Saba (1988, 2000) as was discussed in detail in Chapter II. However, neither Saba nor Moore described whether a correlation between these variables increases, decreases or becomes irrelevant with time. None of the various studies that utilized Transactional Distance Theory discussed in Chapter II included multiple points of data collection and, therefore, could not provide clear descriptions of such change over time. In my study, I found that while the correlation between these two constructs is moderate or significant at the middle point of the study, at the end of the semester it was almost non-existent. I utilized various tests to account for any possible reasons for such change in correlation. For example, the age differences among the participants of the study was considered. However, the data showed that dichotomized age (high school students versus older students) was not a relevant factor in the study. I also noted that one school had extensive technical problems towards the end of the course. The question that dealt with technical difficulties revealed that this problem did indeed escalate towards the end at School 1. However, these problems did not seem to affect the three main variables in this study over time, as all three increased in terms of student satisfaction. Therefore, there is no evidence to conclude that technical issues affected the end of course correlations.

I also observed that this unusual correlation was found with both the data from the reliable and validated scales of the original DELES instrument as well as the data from the new items added to the enhanced instrument. This led me to consider another reason for such unusual results, which corresponds to La Ganza's DIS model (2004). At the beginning of the course, when the learners are less autonomous, their need for teacher's influence and their reliance on their instructor was high. In Phase 1, students seemed to rely greatly on communicating with their teacher. Many of them believed that interaction between the student and the teacher must occur on a daily basis. However, by the end of the course, students exhibited more autonomy. Their need for the instructor's influence decreased as they were more comfortable learning on their own at the end of the course as compared to the beginning of the semester. Even while their need for dialogue decreased, as the course progressed, the instructor-student dialogue actually increased. The structure of the course allowed the teachers to implement more and more strategies that boosted the development of student autonomy, and the students reported increased interrelating techniques used by their teachers. These findings echo La Ganza's theory (2004), according to which more autonomous learners require less influence from the teacher on the academic level. My qualitative data allowed better understanding of the quantitative correlational analysis at the end of the course, where it seems that no relationship exists between student-instructor dialogue and autonomy. Qualitative interviews from Phase 4 resonated with La Ganza's findings (2004) and showed that autonomous students seemed to move to the interrelational climate Q3, where they do not seek teacher's influence on the academic level. From the qualitative data I show that the students feel less isolated as the course progressed. This means that the teachers did a

good job maintaining the *critical in-mind boundary* (La Ganza, 2001, 2004) within this interrelational climate. The interviews revealed that teachers utilized interrelating strategies that were not directly connected with academics and were expressed through verbal and non-verbal clues. To conclude, because teacher's interrelating techniques increased and students' isolation decreased, I may assume that the *critical in-mind boundary* was maintained, which in turn, boosted the growth of learner autonomy. Autonomy and dialogue correlated in the middle of the course. At the end of the course, however, the students were more independent and felt more comfortable on the affective level. It seems that once autonomy reaches a certain level and the student feels supported and cared for by his/her professor, autonomy and dialogue are no longer related to each other. As such, La Ganza (2008) describes autonomy as a changing construct:

> The term *learner autonomy* itself is therefore problematic, as it emphasizes only one side of the dynamic relationship within which learner autonomy might be achieved and implies a notion of self-governance in isolation from external factors. The paradox of learner autonomy is that the learner is able to be autonomous while in a facilitating relationship with the teacher who either may be present externally or, after satisfactory experiences of autonomy, internally (p. 69)

In conclusion, it is possible to hypothesize that for FL DL courses the relationship between autonomy and dialogue will correlate with each other in the beginning or middle point of the course, but that this correlation will be lower at the end of the course. Further investigation of this finding is required before any definite conclusions can be drawn about the nature of the relationships between the variables.

Learner Autonomy and Satisfaction

My second research question looks at the relationship between perceived learner autonomy in the course and student satisfaction:

RQ 2: What is the relationship between perceived learner autonomy in the course and student satisfaction? To what extent does it change throughout the course?

In the middle of the course there was moderately positive correlation between student satisfaction and perceived learner autonomy. Some association appears to hold at the end of the course for the school without apparent technical problems. While both autonomy and satisfaction grew, their connection with each other became weak. At the beginning of the course, according to both quantitative and qualitative measures, the students were less autonomous. This was demonstrated by their doubts about their abilities to succeed online and their views of DL as a self-study, correspondence-like course. They relied heavily on their teachers and required daily interactions. At the end of the course, students demonstrated that their knowledge and their experience gave them confidence to succeed online. Many students reported liking to study on their own. Their need for interaction with their teachers and their teacher's influence decreased while their autonomy increased. According to the qualitative interviews, despite the fact that students still believed that an online course was more independent than a traditional classroom, they no longer identified DL with self-study. They also reported liking their online classes. The comfort and flexibility, that were provided by their online classes, seemed to overcome their occasional feelings of isolation. Some students even showed a preference of online education for all courses. However, higher levels of autonomy at the end of the semester were not associated with higher levels of satisfaction with the course. This

relationship decreased over time. At the beginning, when learners were less autonomous and their satisfaction with the class was lower, the association between these two variables was significant. At the end of the course, on the other hand, when student autonomy was higher and their satisfaction with the course was stronger, the association between the variables of autonomy and satisfaction was almost non-existent. As with RQ1, the change in correlation between autonomy and satisfaction could be caused by a variety of reasons. Technical issues did not affect the correlation. The change in variance could have had such effect. However, I can also hypothesize that in the beginning of any DL course, satisfaction is important for the development of autonomy online. Once autonomy reaches a certain state, however, it no longer correlates strongly with student satisfaction. Much more research concerning the correlation between these two variables over time is needed.

Student-Instructor Dialogue and Student Satisfaction

My third question asks about the way student perception of instructor-student dialog is associated with student satisfaction with the Russian DL course:

> *RQ 3: What is the relationship between student perception of student-instructor dialog and student satisfaction? To what extent does it change throughout the course?*

According to the results reported in Chapter IV and my discussion above, both student-instructor dialogue and overall satisfaction mean rankings increased throughout the course. My qualitative interviews showed that as students' feelings of isolation decreased, there was a corresponding increase of overall student satisfaction with the DL course. The relationship between the two variables of satisfaction and dialogue

demonstrate a similar pattern as the relationship between dialogue and autonomy and between autonomy and satisfaction. There was a definite association between student satisfaction and student perception of dialogue in the middle of the course, which is supported by positive correlations of moderate value and the qualitative data. The results of both types of data, therefore, lead to the conclusion that the variables of dialogue and satisfaction are related at the beginning or the middle point of the program. However, by the end of the course, this association is observed only for one school. In the second school, the association between dialogue and satisfaction is negligible. There is also no compelling evidence to suggest that technical problems were related to the correlation between dialogue and satisfaction. Both the qualitative and the quantitative data support that student satisfaction increased towards the end of the course. Students also commented on how much less isolated they felt towards the end of the semester, and some of them even favor online learning over traditional classroom. The relationship between dialogue and satisfaction and its change over time needs further research in order to provide clarity of understanding of its transformation in web-based DL courses.

Implications of the Results

The results of my study suggest new dimensions that need to be accounted for in our understanding of autonomy, dialogue, and student satisfaction. While some characteristics of autonomy, dialogue, and satisfaction found in the study support the definitions found in the literature on DL and FL, several new features and correlations among the variables suggest the need for reconsidering these constructs in FL DL.

Understanding Autonomy in FL DL

As this study has revealed, autonomy is a multi-level, multi-dimensional construct. As a multi-level construct, autonomy is a dynamic phenomenon that changes over time. In my study, autonomy increased throughout the course. The students at the beginning of the semester are much more teacher-dependent and are not very secure about their success online. At the end of the course the students are more confident in their abilities and require less help from their instructors. According to the quantitative data, autonomy increased from the middle of the course ($\bar{x}$ = 20.76, SD = 3.27) to the end of the course ($\bar{x}$ = 21.95, SD = 1.91). The data show a marginally significant increase in autonomy scores (mean difference = 1.22, paired t-test p = 0.063). The results of t-test are marginally significant, while the non-parametric test does not show a significant difference. Similarly, qualitative data reflected this growth of autonomy. The students became more self-reliant and were more confident in their ability to succeed in DL towards the end of the semester. They were more comfortable with the tools and with the educational platform itself. They connected their success to their self-motivation and gained insights into their own learning styles. Such knowledge helped them to create the most optimal context for their success. The students also became more in control of their learning and demonstrated increased responsibility for their learning experience. Thus, both quantitative and qualitative data demonstrate the increase in learner autonomy throughout the course. The qualitative data enhanced the quantitative findings and revealed that learner autonomy not only increased but its quality changed. Each participant shaped their views and attitudes about DL and developed their unique techniques that made their learning successful in the online context. These findings

support researchers who have emphasized the developmental nature of autonomy and see it as a progression from being dependent to being fully autonomous (Wenden, 1991). Autonomy also seems to be unique for different students. This echoes Little's (1991) statement that "autonomy can take numerous different forms, depending on their age, their proficiency, and so on" (p.4). However, my data demonstrate that the growth of autonomy is not just something that happens on its own in the online classroom (Benson, 2001; White, 1995). Autonomy needs to be developed and supported by instructors (Hurd, 1998; Little, 2001). This study also supports the idea that the presence of dialogue itself does not guarantee its effectiveness (Gibbs & Simpson, 2004). Specific instructor strategies that involve communication, interaction, and interrelating create a climate where autonomy can be fostered.

As a multi-dimensional construct, autonomy is both an individual and a social concept. As such, autonomy includes a combination of skills that is related to the personal characteristics of the learner or is dependent on other ingredients, such as interaction with others, interdependence, and interrelation. In this study the characteristics that are associated with the individual dimension and that were already included in the original DELES instrument are control of learning, ability to make own decisions, working at one's own pace, and metacognitive awareness (Holec, 1979; Benson, 2001; Dickinson, 1995). Those new to the survey are self-direction, responsibility, and preference to work alone. Besides these individual qualities, this study also demonstrates that student autonomy is shaped through interactions with peers and with instructors (Benson, 2001; Little, 2001; White, 1995). It is very important for students to feel that they are supported when they need help and are allowed to work

alone and even struggle in order to find solutions on their own. Thus, instructors also need to exhibit some form of autonomy so they can interrelate with their students and maintain the *critical in-mind boundary* identified by La Ganza (2001, 2004). As autonomous teachers, they must be comfortable resisting influencing their students on the academic level. This situation shows the interdependent nature of autonomy where students' autonomy depends on the teacher's autonomy and vice versa (Breen & Candlin, 1980; La Ganza, 2001, 2004; Little, 1995, 2001). On the other hand, the instructor must be able to sense when the teacher-student bond is about to break and supply strategies to help their students feel connected. Therefore, autonomy is also a result of the interrelated climate and can be fostered in the situation when the teacher creates connection on the affective level without influencing his learners on the academic level (La Ganza, 2001, 2004). This complex nature of autonomy that includes individual, social and interrelational dimensions can be visually illustrated by Figure 8.

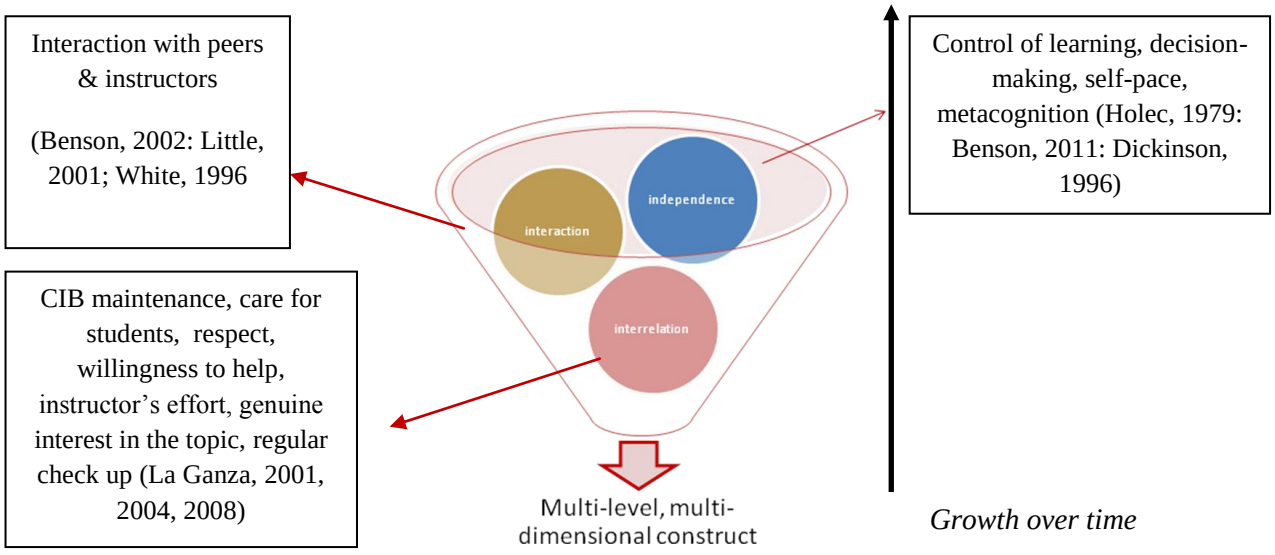


Figure 8. Dimensions of Autonomy

An interesting phenomenon found in this study regarding correlational changes between autonomy and student-instructor dialogue needs further investigation. Based on the results it seems that autonomy correlates with dialogue in the beginning and middle point of a course. This needs much more research before any definite conclusions can be made about the nature of autonomy. This study might shed some light into the obscure nature of autonomy and explain why it is a concept that despite receiving a lot of attention in the past decade is so difficult to define. What can be stated for sure at this point is that autonomy is a multi-level and multi-dimensional construct that is different for each individual and changes from one situation to another and can change over time. Autonomy also depends on external factors and increases as a result of interacting and interrelating with others.

Understanding Dialogue in FL DL

The present study confirmed the research that suggests that the instructor plays a crucial role in the online environment, and that student-instructor dialogue seems to be vital for student satisfaction (Moore, 1993; Saba, 1999; Young, 2006). However, the results of this study also revealed that dialogue is more than pure communication between the teacher and the student as is discussed in both DL literature and SLA research. It includes the aspect of interrelation found by La Ganza (2001, 2004) as well as incorporates what I call a *transcendence of cyberspace* dimension, closely connected to Moore's (1993) understanding of structure. Figure 9 shows the three main dimensions of student-instructor dialogue. In the communication category, several features of dialogue that have been found to be important in both SLA and DL literature were also important for this study. According to SLA research, detailed, timely, and individualized feedback

is very important (Pica, 1994; Long, 1985). The DL literature also described teacher accessibility and availability as crucial for successful learning online (Bolliger & Martindale, 2004; Berge, 1999; Rangecroft, et. al., 1999; Thurmond, et al., 2002). Both my qualitative and quantitative phases proved these features to be vital in the DL context.

In addition, my study revealed several other features that seemed to be important for dialogue. Within the communication subcategory, developing rapport with the students and building communicative skills were found to be central for the FL DL context. Interrelation was also a key category and participants reflected on the importance of the *critical in-mind boundary* maintenance by their instructors. Interrelation included the teacher's caring attitude and respect for his/her students. Willingness to help, teacher's effort, genuine interest in the topic, as well as regular check-ups on the students were crucial in the online FL environment as well. These themes resonated with the findings of La Ganza (2001, 2004) and reflected the main components of his DIS Model. An entirely new category, not previously discussed in the literature on DL, was the category of the *transcendence of the cyberspace*. The results of this study demonstrated that it is important for teachers to develop extra resources and opportunities for practice, to use a variety of media, to create downloadable materials, to maintain live interactions through the use of video in synchronous classroom, and to organize the online learning environment. It is interesting to note that the category of *transcendence of cyberspace* is somewhat similar to Moore's description of structure (1993) discussed in detail in Chapter II. Since structure is an ability of the course to create a flexible or rigid learning environment, it seems that the availability of extra resources for practice, organization of learning environment, utilization of a variety of media, video interactions and

downloadable materials would pertain to the structural components of the program. However, Moore's theory (1993) was mainly built during the times when courses were pre-packaged. While this may have been true before the advent of interactive Internet tools when DL courses were developed prior to the class by non-teacher course developers, in modern FL DL courses it is often the teacher who builds the course and promotes learner-instructor, learner-learner, and learner-material interaction through developing these important structural elements for students' learning. Accordingly, many of these structure characteristics now belong to the *dialogue* construct as shown in Figure 9 below.

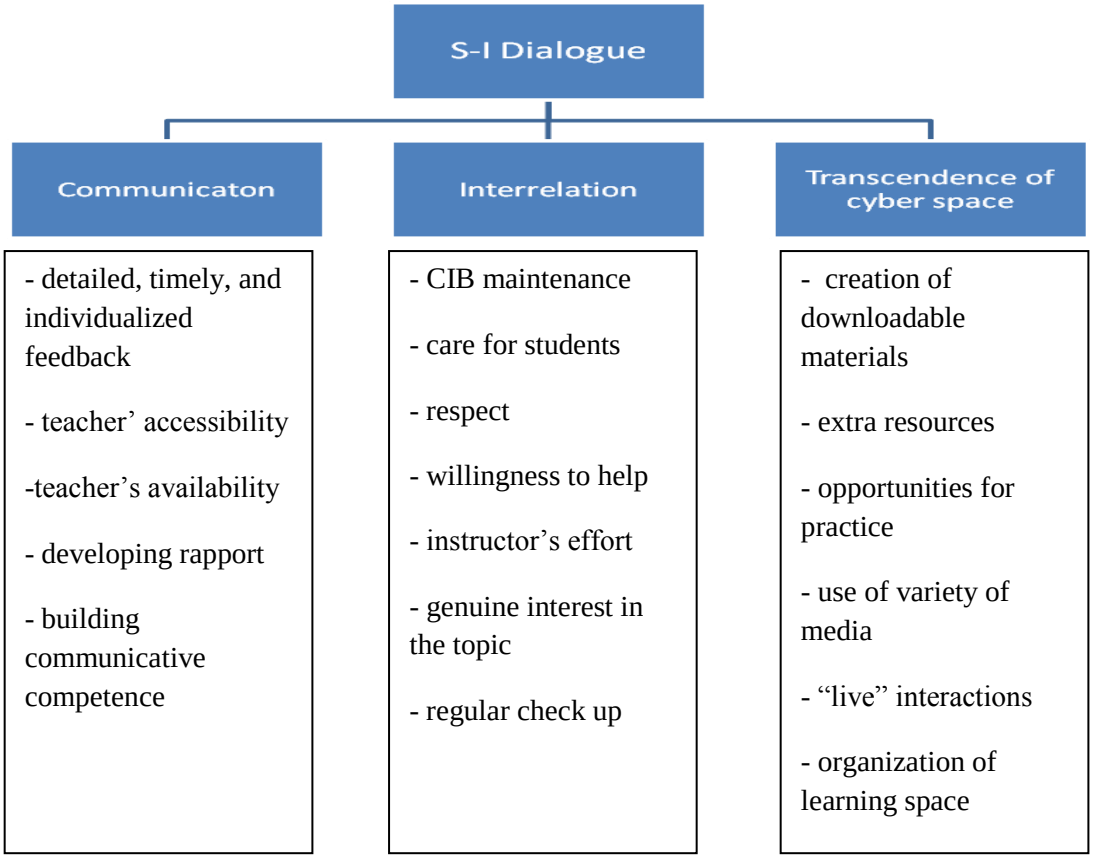


Figure 9. Dimensions of Student-Instructor Dialogue

Like autonomy, student-instructor dialogue increased from pre-course ($\bar{x}$= 48.42, SD = 7.97) to post-course ($\bar{x}$= 51.68, SD = 6.58). Paired t-test shows an increase in the scores for dialogue (mean difference = 3.16, p = 0.073) as well. Qualitative data also indicate that dialogue increased at the end of the course. If in the beginning of the semester most of the students described DL as a self-study, correspondence-like course, wherein communication with their instructors occurred purely through emails, by the end of the semester they depicted their online classes as highly interactive. Teachers seemed to utilize various strategies to involve each student, such as engaging everyone in the synchronous activities, providing background information, and using collaborative tasks.

To conclude, the features of student-instructor dialogue related to three categories: communication, interrelation, and transcendence of cyberspace. Dialogue also increased throughout the course. It seems that the more autonomous the student, the less dialogue he/she needed on the academic level. However, the more autonomous the student, the more interrelation between the instructor and the student was observed. Further research that deals with the main features of dialogue is recommended.

Understanding Satisfaction in FL DL

Despite their feelings of isolation and the presence of technical problems, the majority of learners in my study reported overall positive attitudes towards distance education. Students' satisfaction with the course increased throughout the study. Quantitative data reveal that satisfaction levels increased from the middle of the course ($\bar{x}$ = 24.76, SD = 6.88) to the end of the course ($\bar{x}$= 28.68, SD = 5.25). According to the qualitative data, students believed that DL was worth their time and described it as an

enjoyable, exciting, stimulating, and satisfying environment. Several students even said that they preferred DL to the traditional form of education. Besides the aforementioned qualities of DL that were already included in the original DELES instrument, some additional factors were revealed through this research. The perceived fast pace and work load for classes in the online environment was found to be important for student satisfaction and were seen as barriers to student success. Students also admitted that online learning presented many distractions and that it was hard to stay focused while doing their homework or even during synchronous classrooms in a web-based class. However, DL was seen by many as an emotionally comforting environment that protected participants from *being on the spot* and allowed them to hide behind the computer screen if they did not know the answer. The convenience and flexibility of this learning environment was the most important feature of web-based learning. It allowed students to feel satisfied with their online class despite technical problems and occasional feelings of isolation. Satisfaction was an important outcome that was connected with student autonomy and student-instructor dialogue at the beginning and the middle point of the program. However, towards the end of the program this association was breaking down. It seems that autonomy was no longer connected to satisfaction despite the fact that both of these constructs grew over time. A similar situation was observed with dialogue that was connected to student satisfaction in the beginning but was not correlated with it at the end of the course. One might conclude that for the less autonomous students, dialogue was important for satisfaction in the beginning and middle points of the course. However, once autonomy was developed, student-instructor dialogue did not really have an effect on student satisfaction with the course. These

conclusions need to be further investigated in order to develop a final definition of learner satisfaction with web-based DL.

Practical Application

One of the most important benefits of this study lies in its ability to provide practical applications for both teachers and students. Building autonomy is not only a result of the individual qualities of the student. It also depends on the interaction and interrelation with his/her instructor, which is supported or hindered by the course structure. Therefore, students and teachers, as well as course developers can use the results of this study to create more effective learning environments online and to build an optimal climate for the development of learner autonomy in a web-based DL classroom.

Suggestions for DL and FL DL Teachers

The conclusions derived from this study provide several practical suggestions to teachers concerning developing learner autonomy and increasing learner satisfaction in the online environment. First, both DL and FL teachers should realize that autonomy is a developmental construct. Each student in their classroom comes with an individual set of skills and a varying degree of autonomy. It is crucial for the teachers to tune into their students' abilities and adjust their instructional strategies accordingly. Through continuous communication with their students, and a quick assessment of their autonomy levels at the beginning of the course, an instructor can create a strategic approach for each individual student and provide more support to some learners while allowing others to take charge.

Second, FL DL teachers should understand the factors that contribute to students' feelings of isolation and use those techniques that are proven to promote students' feeling

of connectedness and increase their satisfaction with the online course. Since many students value communication with their instructor, teachers need to provide detailed, timely, and individualized feedback and to be easy to reach. Establishing expectations for how soon students will receive their grades or how often they will hear from their teacher will promote student satisfaction and increase their feelings of connectedness. Developing rapport with students is also important. Students suggest starting a course with ice-breaking activities to ensure that students learn about each other and feel more comfortable contacting their peers during the course. Posting some personal information about the teacher and even creating social networking opportunities within the class will also help connect with the students. In a DL FL classroom, the development of communicative competence seems of particular importance. Therefore, teachers should structure their classes so that more time is devoted to the actual use of the language. It has been noted that many web-based language programs focus on reading, writing, and listening, rather than speaking (Ros I Sole & Hopkins, 2007). However, the results of this study show that FL students seek more opportunities for developing communicative skills. Therefore, DL FL teachers, just like FTF FL teachers should not revert to teaching grammar and passive language skills online but should promote oral interaction and create opportunities for speaking in the target language. Limiting grammatical presentations and posting more practice exercises online while freeing more time in the synchronous classroom for speaking would address this need. Additionally, FL DL teachers should not forget that in the online classroom peer discussions are as important as in the FTF context. Creating collaborative activities where students speak to each other

in the target language will encourage students to develop their communicative skills and at the same time feel less isolated from others.

Despite the fact that teachers' contact information is usually available to all students, participants mentioned that this was not enough. A similar situation is observed with contacting their peers. While most students exchange their contact information (i.e., their email accounts, Wimba and Skype mediums, etc.), they admit to rarely using it. At the same time, most of the students expressed their need for collaboration and suggested that it is the teacher who needs to create such collaborative activities. Because of the lack of natural conversations in the web-based DL classroom, online teachers need to implement strategies that encourage student-instructor and student-student dialogue (Pascarella and Terenzini, 2005; Hansson & Wenno, 2005). Therefore, such strategies as sending reminders, regular check-ins, and the creation of collaborative tasks will promote these types of dialogue and will increase student satisfaction in the classroom.

Moreover, DL seems to be a very transparent environment where physical distance does not diminish people's ability to detect others' feelings and intentions. A teacher needs to sense when to pull back and when to reach out to his/her students. On the one hand, most participants demonstrated the need to solve problems, and even to struggle on their own while studying Russian. On the other hand, students needed to feel connected to their teachers, and to know that their instructor is there to help them, if they need such help. The students admitted that they were very sensitive to whether their instructor genuinely cared for them or not, and whether he/she was really interested in the subject matter or was just "killing time," using a student's words. Therefore, instructors should remember that their care, respect, and willingness to help are very important in

any educational environment but are especially vital in the web-based DL context, which is deprived of physical connection. Teachers need to develop ways to continuously show care for their students and, according to La Ganza (2004), send them the message "I got you in mind." This message is particularly important for maintaining an interrelational climate where both teacher and student resist influencing each other on the academic level. Instructors then need to create a very strong affective bond with students to allow them to struggle on their own and still feel connected.

In addition, instructor's effort and genuine interest in the topic can be contagious for their students. Often, online teachers do not have enough room in the course for sharing their personal feelings about their subject with the students. However, DL FL teachers should allow their passion for the topic to guide their virtual classes, just like it would guide their FTF discussions. Providing extra resources that ignite students' interest for the target language and culture, for example, will allow teachers to share their fascination with certain aspects of that language or culture and to demonstrate the instructors' effort, which in turn may boost students' motivation and satisfaction.

Furthermore, creating an organized online environment that is easy to navigate, that contains printable materials, and various opportunities for practice have the potential to increase students' learning experience online. The use of a variety of media, especially for FL learning, can make studying online fun and can create differentiation where various activities can match diverse students' learning styles. In an FL DL classroom, the use of video for the synchronous classes seems to be of a great importance. It makes the learning process more personal and close. It is also crucial for learners' listening comprehension and pronunciation. Besides, students want to have control over their

learning materials. Therefore, creation of extra resources and opportunities for practice will allow students to find activities that better serve their needs and matche their learning styles.

In summary, the present study suggests that instructors play a significant role in the development of learners' autonomy and in their overall satisfaction with the course. Therefore, both DL and FL DL teachers should utilize various strategies that make web-based learning less isolating and more welcoming for the students. Such an environment has a potential to support student learning of an FL in the web-based context and develop their autonomy. Creating solid communication with students, establishing connections among peers, utilizing interrelational strategies, and developing tactics to compensate for the physical distance online (i.e. transcending cyberspace) may help build an optimal environment for learning FLs in a web-based DL classroom. The success of the course, however, is not solely the responsibility of teacher. Therefore, suggestions for students are provided in the following section.

Suggestions for FL DL Students

In terms of practical suggestions for students, the conclusions of this study offer two main ideas. The first is in regard to the attributions that students make concerning the development of their autonomy. My data reveal that students have varying degrees of autonomy and, thus, require different levels of student-instructor dialogue. Some teachers are aware of this situation and may adjust their interrelating styles to match each individual student's needs, while others might treat their students in a one-size-fits-all fashion. It is impossible to speculate on teacher's sensitivity to their students' needs and their motives, just like it is difficult for teachers to interpret each student's developmental

level when it comes to autonomy. Hence, the only way that students can reveal their true autonomy and their needs for interaction is through an open dialogue with their teacher. While it may be intimidating to approach teachers who hold a superior position of power with requests for help, especially in a web-based classroom, it is important for students to realize its benefits. By sharing his/her feelings and needs with the teacher, the student may understand the reasons and the motives behind certain student-instructor interactions and may build communication that will make their connection stronger. Similarly, as a result of such interaction, the teacher will become aware of the student's needs and may adjust his/her interaction styles to match those needs. This situation can create a highly positive outcome where the interrelational climate that promotes autonomy is fostered according to each student's autonomy level, and the CIB is maintained to ensure connection and prevent isolation. In conclusion, this approach may resolve even major interaction issues and prevent students from withdrawing from the course.

The second idea deals specifically with the need for students to take charge of their feelings of isolation. When students start feeling isolated, they often start feeling overwhelmed and not cared for. Unfortunately, it is easy to withdraw from a DL course if the student assumes that the instructor does not care about him/her, or if the student decides that distance learning is a lonely context where he/she must be able to survive on his/her own or fail. Many students, in the beginning, believe that online learning is full of sacrifices. However, most instructors do care about their students, and the distance learning environment can provide numerous tools for creating connection that can be even deeper than in an FTF class. Therefore, students taking charge of their environment,

finding out the ways to connect to others, and expressing their need for communication is an important step towards successful experiences online.

It is also critical for students to remember that even in classes with highly developed dialogue, many students still feel a certain degree of isolation online. This feeling is natural and can be even beneficial for their autonomy. In order to develop autonomy, students need to be able to relate to others and learn from outside sources, while at the same time they should not need to be confined by what is given to them. Each person's learning is an individual path and, therefore, there is no prescription for how much interaction with the teacher and peers each student must have in order to succeed in a web-based class. However, what does matter is the learner's ability to know what they want and don't want, what makes them connected and what pushes them away beyond the CIB border, how to self-motivate and take charge of learning, and how to communicate their needs to their instructor.

Suggestions for Course Developers

More and more teachers are gaining the technical skills to develop their own FL classes online. However, institutions that select learning management systems or that hire instructional designers to help create online FL course can also benefit from the results of this study. Since dialogue is an important feature of the web-based context and is connected with learner autonomy and student satisfaction in at least some points of the course, it is important to build an environment that allows for rich student-instructor and student-student interactions. Such interactions in the FL DL context can be developed in less rigid structures that combine both synchronous and asynchronous communication. The course should provide opportunities for collaboration among students and for various

ways of communication. In an FL course, the availability of video seems to be of great importance since students' oral and pronunciation skills are developed as a result of teachers' modeling correct forms; their listening comprehension is often impeded when they are not able to see the face of the person with whom they communicate. Moreover, flexibility of the structure can be supported by the presence of a variety of media and extra opportunities for practice. It is important to remember that many students dislike reading from the computer screen. Therefore, providing downloadable materials will increase students' satisfaction with the course.

It is also worth mentioning that a certain level of structural elements that are connected to student-instructor dialogue is important in a course (Moore, 1993; Saba, 2000). Students reflected on the importance of solid organization, clarity of goals, and ease of navigation through the online course. Solid structure can be essential for both highly autonomous and less autonomous learners. Highly autonomous students will be able to independently navigate through the course finding information that is clearly presented and organized for his/her study. Less autonomous students, who need more support, will be able to avoid additional frustrations caused by poor course structure. In a more consistent and organized environment, such students will be able to concentrate on their learning and their autonomy building. Eventually, with the development of new technologies, it will be possible to build classrooms that account for varying levels of student autonomy and that incorporate assessment tools to track how learners learn and not only what students know at a single point in time. Such technologies will need to allow individualized learning paths that depend on learners' interest, on their language proficiency, and on autonomy. As Saba stated, "With content being only a few clicks

away in the future, what is important is not what you know, but how fast you can learn and apply what you have learned to solve novel problems" (Saba, 2000).

Significance of the Study

When considering the results of this research, the significance of this study seems to be threefold. First, the results of this study have added to the existing knowledge of literature on autonomy, dialogue, and satisfaction in the web-based distance learning classroom, particularly concerning foreign languages. Second, this research extended Moore's Transactional Distance Theory (1993) by demonstrating how learner autonomy and student-instructor dialogue are related and how this relationship changes over time. Finally, the results of this study have contributed to the existing mixed methods literature.

Contribution to the FL DL Literature on Autonomy, Dialogue and Satisfaction

The first contribution made by this study is that it adds to the existing literature concerning learner autonomy, student-instructor dialogue, and satisfaction in a web-based distance learning classroom. Numerous studies have focused on the definition of learner autonomy in the distance course. The literature often defines autonomy as an individual and a social construct. Accordingly, I focused on including these aspects in my study, which revealed that both parameters of autonomy are crucial online. I also showed that autonomy is developed as a result of interrelation between the student and the instructor, and that this interrelation is individual for each student and changes over time. In addition, this study proposed the possibility of autonomy and dialogue eventually forming a unifying construct, which needs to be confirmed by further research.

Student-instructor dialogue was also explored in depth. I identified three main dimensions of dialogue: communication, interrelation, and transcendence of cyberspace

to be vital for successful web-based learning. Personal communication and the development of FL oral skills are important in a FL DL context, as well as the teacher's interrelating strategies. Various tactics that compensate for the physical distance and that promote student-instructor, student-student, and student-content interactions were also central to this study and has been confirmed by other FL DL research that found similar results (Hansson & Wenno, 2005; La Ganza, 2001, 2004; White, 2005).

My analysis of student satisfaction demonstrated that technical issues, the seemingly fast pace of online classes, and high work load negatively affect students in a web-based courses. However, these obstacles are overshadowed by the convenience and flexibility that the online courses have to offer. Many students consider their web-based experience to be enjoyable and exciting, while some even prefer this environment for all other classes.

Further, this study considered the relationships that exist among the main three variables. The correlations among these variables seem to follow a similar pattern. They are strong at the beginning and at the middle points of the course, but become almost non-existent towards the end of the semester. Various factors might contribute to such a situation. In particular, the technical difficulties associated with one school could be one such reason for the changing correlations. However, there might be a deeper cause for this change. It might be true that more autonomous students do not require more interaction and, therefore, their overall satisfaction with the course is no longer connected with either autonomy or dialogue. Certainly, this possibility needs to be examined empirically before any affirmative conclusions can be made. In summary, my study sheds light onto the obscure nature of autonomy, dialogue, and satisfaction in the DL FL

context. It has provided some new dimensions that need to be accounted for in the current definitions of each construct. It has also found an intriguing association among these variables that ought to be confirmed or denied by further studies.

Contribution to Transactional Distance Theory

This study was developed to utilize Transactional Distance Theory in order to explore its two main variables of autonomy and student-instructor dialogue in the new FL DL context. This study was developed after a thorough analysis of the main advantages and limitations of Transactional Distance Theory and research that has empirically tested this theory in various educational settings, as I discussed in detail in Chapter II. My study supports the theory by Moore and recognizes importance of its three main constructs: autonomy, dialogue and structure. Despite the fact that I only concentrated on the two variables of Transactional Distance Theory and purposefully omitted course structure, it still appeared in students' discussions of dialogue and was identified as *transcendence of the cyber space* that contained such structural elements, as course organization, availability of downloadable and printable materials, use of a variety of media, need for extra resources, and video interactions during synchronous portions of the class. This study confirms the importance of the relationship between learner autonomy and student-instructor dialogue in the first half of the study. It also supports Saba's findings that this relationship is dynamic and demonstrates that autonomy and dialogue change over time and are individual for each student. The majority of the studies that utilized Transactional Distance Theory measured only one-time perceptions obtained from one-time questionnaires and does not account for any change over time that might occur in the variables themselves as well as in their relationships. Collection of data at several points

in time however, as was done in my study, show intriguing changes in the relationships between the main variables. At the end of the course the relationship between autonomy and dialogue was no longer maintained, and the quality of autonomy and dialogue itself might change. This might explain why some studies supported Transactional Distance Theory while others failed to observe correlations among its main variables. It is worth exploring further whether a similar pattern is observed in other FL DL contexts. This change in quality of the main variables might also help to account for the differences in the definitions that are found throughout most of the studies on Moore's theory (1993, 2007). The confusion might be a result of the ever-changing nature of the main constructs, and because various researchers may have captured the definitions at different points of the constructs' development.

One more limitation of the previous studies testing Transactional Distance Theory was in their lack of connecting main variables with the student outcomes of learning achievements or student satisfaction (Gorsky & Caspi, 2005). My study incorporated student satisfaction as a dependent variable and explored the relationships that exist among autonomy, dialogue, and satisfaction. This relationship is significant or moderate in the first half of the course and is weak or non-existent at the end of the course. This finding provides direction for further investigations and suggests that any study incorporating Transactional Distance Theory should involve student satisfaction.

Moreover, Gorsky and Caspi (2005) recommended that future research include both interview and observational data. This study is a mixed methods study that involved two qualitative and two quantitative phases. The addition of qualitative phases was crucial as it helped to reveal those factors that related to student autonomy, dialogue, and

satisfaction that were not measured by the original quantitative instrument. Qualitative data also provided insights where quantitative data alone was not sufficient and helped discover dimensions of the main constructs that otherwise would have not been apparent. Qualitative data allowed me to address another limitation associated with the studies on Transactional Distance Theory where dialogue was also often measured in terms of quantity rather than quality. According to Moore's definitions (1993), dialogue is *not* the number of verbal interactions. This study is aligned with the view of Moore and considers both qualitative and quantitative aspects of dialogue.

In conclusion, Moore's (1993) Transactional Distance Theory can be applied in the FL DL context. It is supported at the beginning and the middle point of the course. However, this theory needs to be enhanced to account for this unique context. One possibility is to consider La Ganza's DIS model as a supplemental framework through which FL DL can be seen. If autonomy is a result of the interrelation between the student and the teacher, it might produce a new construct that breaks correlational relationship between these two variables that are usually maintained when autonomy is low. This study demonstrated that Moore's theory can and should be tested in the new context of FL DL and that more empirical data are needed in order to create a clearer understanding of how autonomy and dialogue function in this environment.

Contribution to the Mixed Methods Literature

This study demonstrates the importance of mixed methods literature to study such complex constructs as learner autonomy, student-instructor dialogue, and satisfaction. Many of the most important findings, such as new dimensions of each construct, their relationships and change over time cannot be meaningfully reduced to

numbers, or adequately understood without reference to the context of FL DL. Since most surveys are not designed within the immediate environment where they are administered they might not account for that particular context. They also do not provide enough room for exploration of surprising discoveries and unexpected findings. This study shows that qualitative methods can help in those circumstances where a quantitative survey may be difficult to interpret. For instance, the intricacies of autonomy, dialogue, and satisfaction would have not been discovered without Phase 1 interviews. Likewise, understanding of the quantitative survey results of Phase 3 that revealed non-existent correlations among main variables would not have been possible without the Phase 4 follow up interviews.

Neither would the sole use of qualitative methods in the present study have been enough to make certain conclusions about major findings of this research. For example, quantitative data provided actual measures of the impact of the web-based class on perceived student autonomy, dialogue, and satisfaction and revealed the obvious discrepancy that exists in their relationship between the middle and end points of the semester. Second, had I only used interviews for my analysis, it would have been difficult to suggest any replications or verifications of my results because of the limited number of the interview participants and because any two researchers looking at the same qualitative data may arrive at different interpretations.

It is, therefore, evident that the strengths of one approach potentially complement the weaknesses of the other, and vice versa. Therefore, mixed methods research helped measure the unobservable, such as the main constructs of the study and their relationships throughout the course. When both types of data reflected similar findings, this gave me

more confidence to make certain conclusions. For instance, when both qualitative and quantitative data demonstrated the rise in student autonomy, I could more surely conclude that autonomy increases throughout the course. When one type of data provided insufficient information, another type of data revealed more or different details. For example, my qualitative data demonstrated that autonomy not only grew, as was measured in the surveys, but showed that its quality changed over time for each participant. In the situation when qualitative and quantitative data seemed to contradict each other, this was a sign for me to explore the phenomenon in even more depth and to suggest further investigations. In my analysis, when statistical data confirmed that both autonomy and dialogue increased but that their relationship became weak, qualitative data showed the contrary. It helped to explain that the increase in dialogue enhanced interrelation, which in turn boosted autonomy. This finding led me to hypothesize that autonomy and dialogue may change their quality as a result of their interrelation and, thus, break the relationship that exists between them when autonomy is low.

Besides the fact that mixed methods complemented each other well in my study, the utilization of the Exploratory Model with the elements of an Explanatory Model was also a very successful choice. Qualitative data explored and revealed new factors that were central to my main variables and, therefore, the main weight was placed on this first qualitative part. Nevertheless, the quantitative instrument allowed for the comparison of the new scales with the pre-existing scales and served as a barometer for the reliability of the new scales. The addition of the second survey was also essential to this research. As I discovered, different correlation patterns were observed for the first and the second surveys. Had I not used a validated instrument, such intriguing finding could have been

attributed to possibly unreliable new scales. However, when compared with the reliable scales of the original DELES instrument, a similar phenomenon was observed, which made me believe that this difference revealed significant findings about the nature of learner autonomy, student-instructor dialogue, and satisfaction. The additional second quantitative part also demonstrated that learner autonomy, learner satisfaction, and student-instructor dialogue change over time, which would be impossible to detect with only one quantitative phase. The follow-up qualitative interviews were also critical as they helped me explain the change of quality in the main variables and in their relationships. Had my study ended with Phase 3, I would have only discovered that the constructs of autonomy, satisfaction, and dialogue change over time but would have not understood how they change. Final student interviews revealed that autonomy is a multi-faceted construct that changes differently for different students. It also helped me to realize the interrelational nature that exists between autonomy and student-instructor dialogue and how the shift from one interrelational climate to another changes the connection between the two variables. This final phase allowed me to use complex mixing at the data analysis stage of my study and to avoid weaknesses that come with each type of research, while utilizing their strengths to form a bigger picture of the main constructs.

As the discussion above suggests, this study contributes greatly to our knowledge of student autonomy, student-instructor dialogue, and satisfaction. It adds to the body of literature intending to clarify these obscure concepts. It also contributes to Transactional Distance Theory enhancing it with the DIS model of La Ganza (2004). Moreover, it demonstrates that mixed methods allow dealing with such complex concepts as learner

autonomy, student-instructor dialogue, and satisfaction. It also suggests that the Exploratory Design with the elements of Explanatory Design is beneficial when studying phenomena that change over time. Despite these numerous contributions, there were several limitations to this study, which are discussed in the following section.

Limitations of the Study

The first limitation of my study is in its sample size and sample make up. Even though forty-six subjects are enough for making statistically significant conclusions, the power of the conclusions would increase with more participants. Besides, my sample size was too small for a factor analysis which would be a very powerful tool in investigating which attributes of student-instructor dialogue corresponded to autonomy development and student satisfaction. A much larger sample is needed for these purposes. Moreover, despite the fact that the combination of several groups of students in one study is justified in this research, and that age (high school seniors versus older students) was not a significant factor, it would be interesting to create a more homogenous group to further investigate whether the same relationships hold among the main variables. In addition, it may be difficult for the results of this study to be directly generalized to other Russian distance programs as it is difficult to account for the differences caused by varying online course structures, course contents, and instructors.

This research also investigates student satisfaction with their online learning experience, which brought some limitations to the study as well. Despite the fact that student satisfaction is considered a key indicator of online retention (Berge, 1999; King & Doerfert, 1996; Liaw & Huang, 2000), it does not necessarily predict student performance in successfully acquiring course outcomes or objectives. Future studies that

investigate this relationship are recommended. Moreover, by focusing on student perceptions, I was unable to witness the actual interactions that happened between instructors and students or to determine objectively whether students' recollections of this dialogue matched actual teachers' behavior. The autonomy of the students also was not measured objectively but was explored through the students' perspectives. It would be beneficial incorporate an objective measure of student autonomy and compare their answers with actual levels. It would also be interesting to see whether the perceived level of autonomy corresponds to the real degree of autonomy and if both factors change in a similar manner. Because of the interconnected nature of student-instructor dialogue, it would also be interesting to explore teachers' autonomy and teachers' perceptions of student-instructor dialogue. In some instances, student interpretation of teacher actions might not be based on the teacher's intentions.

Despite the benefits of mixed method research discussed in the previous section, this model comes with some challenges. It takes considerable time to conduct the study, which also requires quick turn over of the results that feed each consecutive stage. It is also difficult to initially finalize the quantitative instrument used in the second phase because of the unpredictability of the results of the first phase. The study tried to account for sample contamination issues, where subjects' responses on the surveys are affected by the preceding instrument, by selecting different groups for the interviews and for the surveys. However, it was difficult to find one setting that had enough students for this strategy. Therefore, I had to combine two different programs into one study. I was lucky enough to encounter two programs that shared similar pace and structure, and utilized the

same learning management systems, live conferencing tools, and textbooks. However, for other researchers finding such a match might be very difficult.

While this study has several limitations, they do not undermine the significance or the benefit of the results of this study. These limitations provide new venues for future research that will be discussed in the following section.

Suggestions for Further Research

The results and implications of this study build a strong foundation for future research on learner autonomy, student-instructor dialogue, and student satisfaction in a web-based FL DL classroom. Several possible directions for future research can be identified. They include selecting a larger and more homogenous sample, adding objective measures of learner autonomy to compare with the perceptions of learner autonomy, using measures of teacher perceptions along with those of student perceptions, observing student-instructor dialogue directly, investigating further the constructs of autonomy and dialogue and their change in quality over time, and additional research that measures the relationships of the main three variables and their change over time.

Further studies, involving more students are needed to verify the relationships among the main three variables. A larger sample may help shed light onto how demographic factors correlate with autonomy, dialogue, and satisfaction. A more homogenous group may reveal different patterns of the relationships among the main three variables. Moreover, factor analysis that is possible with a high number of students may discover more intricacies of this relationship.

It would be interesting to include more objective measures of learner autonomy and compare them with the measures based on student perceptions. Any changes in actual

learner autonomy and student perceptions of it could be captured in such research to determine whether they parallel or contradict each other. Research that incorporates the voices of teachers would also be useful in order to understand teachers' views of autonomy development and better understand how they see their role in such a process. In addition, the inclusion of objective measures of student-instructor dialogue would help realize whether students' perceptions of it are true. It could also provide some extra information on the nature of the relationship between dialogue and autonomy and between dialogue and satisfaction.

Furthermore, investigations of whether the quality of the constructs of autonomy and dialogues stays the same or changes over time are needed. Specifically, investigation of whether these two concepts develop into a new construct as a result of interrelation is of particular importance. More studies that investigate these main constructs and their relationships need to be conducted in the FL DL context in order to understand whether the FL DL environment is similar to other DL environments when it comes to autonomy, dialogue, and satisfaction, or whether it presents a unique context with its peculiar characteristics.

Summary

My goal for this study was to extend existing knowledge on learner autonomy, dialogue, and satisfaction, and to explore the relationships among these variables in the FL DL context. In this investigation it became apparent that learner autonomy, student-instructor dialogue and satisfaction correlate at the middle of the semester. While each variable grew over time, their connection became almost non-existent by the end of the course. This implies that there are either some external factors that might have influenced

this relationship in my study, or that the quality of the constructs themselves changed over time. This study also confirms that Transactional Distance Theory can be applied to the FL DL context, but needs to be enhanced to account for the specific nature of this educational environment. Such research can bring the field of FL DL closer to the formation of a single unified theory. Further research suggestions with specific recommendations are provided.

A second aim of this research was to provide teachers, students, and course developers with concrete practical tools that can help build successful web-based FL DL environments. Based on the results and implications of this study, I offered ideas on how teachers can become better equipped to teach FLs online and recognize their important role in this process. It is my intent to help teachers realize that much of the success of their students depends on effective student-instructor dialogue. Teachers have the power to boost student autonomy online and to increase their motivation. However, ignoring certain tactics that are peculiar for web-based instruction might push some students beyond their comfort zone and even lead to their withdrawal from the course. Knowledge of how to communicate with their students, how to structure their classes, how to provide support, when to resist influencing students on the academic level, and how to maintain affective connections online can make the learning of FLs in a web-based context very successful. I also aim to empower students by assuring them that DL is not a lonely experience and that they play an important role in creating their personal experience online. Students' awareness of the peculiarities of this relatively new educational setting, their knowledge of support tools, and their strategies to help cope with isolation can transform a lonely journey into a powerful and exiting experience. Students'

understanding of their personal learning path and their ability to communicate their needs to their teacher can prevent many students from being frustrated, being disengaged, or withdrawing from the program. Finally, I tried to provide course developers with suggestions on how to build effective educational environment online.

APPENDIX A
IRB APPROVAL THE UNIVERSITY OF IOWA 1

THE UNIVERSITY OF IOWA

Human Subjects Office
340 Medicine Administration Building
Iowa City, Iowa 52242-1101
319-335-6564 Fax 319-335-7310
irb@uiowa.edu
http://research.uiowa.edu/hso

IRB ID #: 201004740

To: Marina Kostina

From: IRB-02 DHHS Registration #:IRB00000100, Univ of Iowa, DHHS Federalwide Assurance #:FWA00003007

Re: Exploration of student perceptions of autonomy and student-teacher dialogue in distance Russian language classroom

---

Approval Date: 08/16/10

Next IRB Approval Due Before: 05/10/11

Type of Application:	Type of Application Review:	Approved for Populations:
☐ New Project	☐ Full Board:	☐ Children
☐ Continuing Review	Meeting Date:	☐ Prisoners
☒ Modification	☒ Expedited	☐ Pregnant Women, Fetuses, Neonates
	☐ Exempt	

Source of Support:

This approval has been electronically signed by IRB Chair:
Janet Karen Williams, PHD
08/16/10 1433

Page Break

APPENDIX B
IRB APPROVAL THE UNIVERSUTY OF IOWA 2

Human Subjects Office/
Institutional Review Board (IRB)
105 Hardin Library for the Health Sciences
600 Newton Road
Iowa City, Iowa 52242-1098
319-335-6564 Fax 319-335-7310
irb@uiowa.edu
http://research.uiowa.edu/hso

IRB ID #: 201004740

To: Marina Kostina

From: IRB-02 DHHS Registration # IRB00000100, Univ of Iowa, DHHS Federalwide Assurance # FWA00003007

Re: Exploration of student perceptions of autonomy and student-teacher dialogue in distance Russian language classroom

---

Approval Date: 10/07/10

Next IRB Approval Due Before: 05/10/11

Type of Application:	Type of Application Review:	Approved for Populations:
☐ New Project	☐ Full Board:	☒ Children
☐ Continuing Review	Meeting Date:	☐ Prisoners
☒ Modification	☒ Expedited	☐ Pregnant Women, Fetuses, Neonates
	☐ Exempt	

Source of Support:

This approval has been electronically signed by IRB Chair:
Janet Karen Williams, PHD
10/07/10 1133

Page Break

APPENDIX C
IRB APPROBAL THE UNIVERSITY OF IOWA 3

Human Subjects Office/
Institutional Review Board (IRB)
105 Hardin Library for the Health Sciences
600 Newton Road
Iowa City, Iowa 52242-1098
319-335-6564 Fax 319-335-7310
irb@uiowa.edu
http://research.uiowa.edu/hso

IRB ID #: 201004740

To: Marina Kostina

From: IRB-02 — DHHS Registration #: IRB00000100, Univ of Iowa, — DHHS Federalwide Assurance #: FWA00003007

Re: Exploration of student perceptions of autonomy and student-teacher dialogue in distance Russian language classroom

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Approval Date: 10/22/10

Next IRB Approval Due Before: 05/10/11

Type of Application:	Type of Application Review:	Approved for Populations:
☐ New Project	☐ Full Board:	☒ Children
☐ Continuing Review	Meeting Date:	☐ Prisoners
☒ Modification	☒ Expedited	☐ Pregnant Women, Fetuses, Neonates
	☐ Exempt	

Source of Support:

This approval has been electronically signed by IRB Chair:
Janet Karen Williams, PHD

APPENDIX D
CONSENT FORM FOR ADULT PARTICIPANTS

Project Title: Exploration of student perceptions of autonomy and student-teacher dialogue in distance Russian language classroom

Principal Investigator: Marina Kostina

Research Team Contact: Marina Kostina: mkostina@sbcglobal.net, (319) 594-5530

Dr. Michael Everson: michael-everson@uiowa.edu, 319/335-6175

We invite you to participate in a research study. The purpose of this research study is to find out about how you feel about studying a foreign language in a distance learning classroom.

We are inviting you to participate in this research study because you are taking a distance Russian Class. Approximately 100 0 people will take part in this study at the University of Iowa.

If you agree to take part in this study, your involvement will last for approximately 45 minutes for an individual interview conducted on-line before the start date of your online course. Then, on another day, at the beginning of the course I will ask you to take an online survey that should take you 5-10 minutes to complete. At the end of the course I will ask you take this survey again. If you withdraw from the course, I will ask you to take the second survey at the time you withdraw from the course.

I will schedule an interview to be conducted over the Internet at a time that is mutually convenient. I will provide you with the step-by-step easy instructions on how to use SKYPE (you will use this software for your distance learning class). You will be able to see me through a built-in camera on my computer and hear me through SKYPE but I will not be able to see you, but will only hear your voice. I will ask you questions about your experiences and feelings about distance learning in general and distance learning of Russian language in particular. Your answers will be audio recorded by the software. I will use the recordings to make a transcription of our interview.

Approximately 1 week after the interview, I will send you an e-mail with the link to the first online survey. You may take the survey at the time and place convenient to you. I ask that you complete the survey within 5 days of the notification. This survey will ask you to reflect on your satisfaction with the course, your interaction with the professor online and your role in the learning process. You are free to skip any questions that you would not prefer to answer.

At the end of the course, I will again send you the link to the on-line survey and ask that you answer the questions again. I will ask that you complete the survey within five days of receiving the link. You may skip any questions you do not wish to answer.

If you withdraw from the course, **your professor will let me know**. I will send you an e-mail with the link to a survey that asks about your reasons for withdrawing from the course. You may skip any questions you do not wish to answer or you may choose not to complete the survey.

One aspect of this study involves making audio recordings of you. These recordings are needed so that we can verify the accuracy of the experimenters' written record of your responses. I **will** erase the recordings after I have completed the transcriptions. All recordings will be kept in a secure password-protected folder on my computer. Only I will have the access to this information.

We will keep the information you provide confidential, however federal regulatory agencies and the University of Iowa Institutional Review Board (a committee that reviews and approves research studies) may inspect and copy records pertaining to this research. To help protect your confidentiality, I will not use your name to identify the information I collect for the study. Your voice records will be identified with your study name kept in the personal computer of Marina Kostina in a password-protected file. Your online surveys will be numbered and will not contain your name. The list linking your study name, your study number, and your identifying information will be stored in a separate location and will be accessible only to the researchers on this project.

If we write a report or article about this study or share the study data set with others, we will do so in such a way that you cannot be directly identified. I will change your name and hide your identity so that no one can recognize you.

You may be concerned that your participation in this study will affect the grade you receive for the course. Your decision whether or not to be in the study will not be reported to the course instructor and your responses will not be shared with the course instructor.

You will be asked to provide information over the Internet. Information provided via the internet may be viewed by individuals who have access to the computers where the information is collected or stored. It is also possible that your responses could be viewed by unauthorized persons. We will use a secure web site to collect the study information and password protected computers to store the study information. We will not collect any information in the on-line questions that would identify you.

You will not benefit personally from being in this study. However we hope that others may benefit in the future from what we learn as a result of this study.

You will not have any costs for being in this research study. You will not be paid for being in this research study.

Taking part in this research study is completely voluntary. If you decide not to be in this study, or if you stop participating at any time, you won't be penalized or lose any benefits for which

you otherwise qualify. Your decision whether or not to be in this study will not affect the grade you receive for the course or your status at the University.

We encourage you to ask questions. If you have any questions about the research study itself, please contact: **Marina Kostina: mkostina@sbcglobal.net , (319) 594-5530.**

If you experience a research-related problem, please contact **Marina Kostina: mkostina@sbcglobal.net, (319) 594-5530 or Dr. Michael Everson: michael-everson@uiowa.edu, (319) 335-6175**

If you have questions about the rights of research subjects, please contact the Human Subjects Office, 300 College of Medicine Administration Building, The University of Iowa, Iowa City, IA 52242, (319) 335-6564, or e-mail irb@uiowa.edu. To offer input about your experiences as a research subject or to speak to someone other than the research staff, call the Human Subjects Office at the number above.

If you agree to participate in this study, please let me know now or send me an e-mail within the next 5 days. Thank you very much for your consideration.

APPENDIX E
CONSENT FORM FOR MINOR PARTICIPANTS

Project Title: **Exploration of student perceptions of autonomy and student-teacher dialogue in distance Russian language classroom**

Principal Investigator: Marina Kostina

Research Team Contact: **Marina Kostina:** mkostina@sbcglobal.net**, (319) 594-5530**

Dr. Michael Everson: michael-everson@uiowa.edu**, 319/335-6175**

If you are the parent/guardian of a child under 18 years old who is being invited to be in this study, the word "you" in this document refers to your child. You will be asked to read and sign this document to give permission for your child to participate.

If you are a teenager reading this document because you are being invited to be in this study, the word "you" in this document refers to you. You will be asked to read and sign this document to indicate your willingness to participate.

This consent form describes the research study to help you decide if you want to participate. This form provides important information about what you will be asked to do during the study, about the risks and benefits of the study, and about your rights as a research subject.

If you have any questions about or do not understand something in this form, you should ask the research team for more information.

You should discuss your participation with anyone you choose such as family or friends.

Do not agree to participate in this study unless the research team has answered your questions and you decide that you want to be part of this study.

WHAT IS THE PURPOSE OF THIS STUDY?

This is a research study. We are inviting you to participate in this research study because you are taking Russian classes online.

The purpose of this research is to find out about how you feel about studying a foreign language in a distance learning classroom.

HOW MANY PEOPLE WILL PARTICIPATE?

Approximately **140** people will take part in this study at the University of Iowa.

HOW LONG WILL I BE IN THIS STUDY?

If you agree to take part in this study, you can choose 1 of the two options:

1. Participate in the online interview: Your involvement will be for approximately 30 minutes. We will conduct the interview online (you will be able to see me but I will be able to hear you). I will ask questions about your online experience learning Russian. I will record your answers and save them in a password protected folder on my computer. No one but me has the access to this folder. I will assign you a fictional name so your identity will be anonymous.
2. Participate in the online survey: Your involvement will last for 15 minutes during the first online anonymous survey (given at the beginning of the course) and 15 minutes during the second survey (given at the end of the course). . If you withdraw from the course, I will ask you to take the second survey at the time you withdraw from the course.

WHAT WILL HAPPEN DURING THIS STUDY?

1. Your school representative will collect your signed consent form and send it to me. I will them send you an e-mail to set up an interview time. Your representative will be cc-d on the email. We will conduct the interview online (you will be able to see me but I will be able to hear you). I will ask questions about your online experience learning Russian. I will record your answers and save them in a password protected folder on my computer. No one but me has the access to this folder. I will assign you a fictional name so your identity will be anonymous.
2. Your school representative will send you an email with the link to the first online survey. You may take the survey at the time and place convenient to you. I ask that you complete the survey within 5 days of the notification. This survey will ask you to reflect on your satisfaction with the course, your interaction with the professor online and your role in the learning process. You are free to skip any questions that you would not prefer to answer.
   At the end of the course, your school representative will again send you the link to the on-line survey and ask that you answer the questions again. I will ask that you complete the survey within five days of receiving the link. You may skip any questions you do not wish to answer.

   The surveys ask about your experiences and feelings about distance learning in general and distance learning of Russian language in particular.

If you withdraw from the course, your professor will let me know. Your school representative will send you an e-mail with the link to a survey that asks about your reasons for withdrawing from the course. You may skip any questions you do not wish to answer or you may choose not to complete the survey.

WHAT ARE THE RISKS OF THIS STUDY?

You may experience one or more of the risks indicated below from being in this study. In addition to these, there may be other unknown risks, or risks that we did not anticipate, associated with being in this study.

We will keep the information you provide confidential, however federal regulatory agencies and the University of Iowa Institutional Review Board (a committee that reviews and approves research studies) may inspect and copy records pertaining to this research. To help protect your confidentiality, I will not use your name to identify the information I collect for the study. Your voice records will be identified with your study name kept in the personal computer of Marina Kostina in a password-protected file. Your online surveys will be numbered and will not contain your name. The list linking your study name, your study number, and your identifying information will be stored in a separate location and will be accessible only to the researchers on this project.

If we write a report or article about this study or share the study data set with others, we will do so in such a way that you cannot be directly identified. I will change your name and hide your identity so that no one can recognize you.

You may be concerned that your participation in this study will affect the grade you receive for the course. Your decision whether or not to be in the study will not be reported to the course instructor and your responses will not be shared with the course instructor.

You will be asked to provide information over the Internet. Information provided via the internet may be viewed by individuals who have access to the computers where the information is collected or stored. It is also possible that your responses could be viewed by unauthorized persons. We will use a secure web site to collect the study information and password protected computers to store the study information. We will not collect any information in the on-line questions that would identify you.

WHAT ARE THE BENEFITS OF THIS STUDY?

You will not benefit personally from being in this study. However we hope that others may benefit in the future from what we learn as a result of this study.

You will not have any costs for being in this research study. You will not be paid for being in this research study.

Taking part in this research study is completely voluntary. If you decide not to be in this study, or if you stop participating at any time, you won't be penalized or lose any benefits for which you otherwise qualify. Your decision whether or not to be in this study will not affect the grade you receive for the course or your status at the University.

WILL IT COST ME ANYTHING TO BE IN THIS STUDY?

You will not have any costs for being in this research study.

WILL I BE PAID FOR PARTICIPATING?

You will not be paid for being in this research study.

WHO IS FUNDING THIS STUDY?

The University and the research team are receiving no payments from other agencies, organizations, or companies to conduct this research study.

WHAT ABOUT CONFIDENTIALITY?

We will keep the information you provide confidential, however federal regulatory agencies and the University of Iowa Institutional Review Board (a committee that reviews and approves research studies) may inspect and copy records pertaining to this research. To help protect your confidentiality, I will not use your name to identify the information I collect for the study. Your voice records will be identified with your study name kept in the personal computer of Marina Kostina in a password-protected file. Your online surveys will be numbered and will not contain your name. The list linking your study name, your study number, and your identifying information will be stored in a separate location and will be accessible only to the researchers on this project.

If we write a report or article about this study or share the study data set with others, we will do so in such a way that you cannot be directly identified. I will change your name and hide your identity so that no one can recognize you.

IS BEING IN THIS STUDY VOLUNTARY?

Taking part in this research study is completely voluntary. You may choose not to take part at all. If you decide to be in this study, you may stop participating at any time. If you decide not to be in this study, or if you stop participating at any time, you won't be penalized or lose any benefits for which you otherwise qualify.

What if I Decide to Drop Out of the Study?

You can drop out from the study at any point without any consequences.

Will I Receive New Information About the Study while Participating?

If we obtain any new information during this study that might affect your willingness to continue participating in the study, we'll promptly provide you with that information.

Can Someone Else End my Participation in this Study?

Under certain circumstances, the researchers might decide to end your participation in this research study earlier than planned. This might happen because because the PI has not collected enough evidence to proceed with the study.

WHAT IF I HAVE QUESTIONS?

We encourage you to ask questions. If you have any questions about the research study itself, please contact: **Marina Kostina: mkostina@sbcglobal.net , (319) 594-5530.**

If you experience a research-related problem, please contact **Marina Kostina:** mkostina@sbcglobal.net**, (319) 594-5530 or Dr. Michael Everson:** michael-everson@uiowa.edu**, (319) 335-6175**

If you have questions, concerns, or complaints about your rights as a research subject or about research related injury, please contact the Human Subjects Office, 105 Hardin Library for the Health Sciences, 600 Newton Rd, The University of Iowa, Iowa City, IA 52242-1098, (319) 335-6564, or e-mail irb@uiowa.edu. General information about being a research subject can be found by clicking "Info for Public" on the Human Subjects Office web site, http://research.uiowa.edu/hso. To offer input about your experiences as a research subject or to speak to someone other than the research staff, call the Human Subjects Office at the number above.

This Informed Consent Document is not a contract. It is a written explanation of what will happen during the study if you decide to participate. You are not waiving any legal rights by signing this Informed Consent Document. Your signature indicates that this research study has been explained to you, that your questions have been answered, and that you agree to take part in this study. You will receive a copy of this form.

Subject's Name (printed):

_____

Do not sign this form if today's date is on or after $STAMP_EXP_DT .

_____ _____

(Signature of Subject) (Date)

Parent/Guardian or Legally Authorized Representative's Name and Relationship to Subject:

_____ _____

(Name - printed) (Relationship to Subject - printed)

Do not sign this form if today's date is on or after $STAMP_EXP_DT .

_____ _____

(Signature of Parent/Guardian or Legally Authorized Representative) (Date)

APPENDIX F
DELES WITHDRAWAL SURVEY

I understand that my participation is voluntary, anonymous, and would in no way affect my outcomes in the course. Please click "I Accept" button to proceed to the survey

○ I accept

School 1

School 2

Demographics:

Age

Gender

Year of studying Russian

Have you taken distance classes before? Which ones?

Other languages spoken

Experiences in this course.
Please respond to the following statements.

	Never	Seldom	Sometimes	Often	Always
1. If I have an inquiry, the instructor finds time to respond.	☐	☐	☐	☐	☐
2. The instructor helps me identify problem areas in my study.	☐	☐	☐	☐	☐
3. The instructor responds promptly to my questions.	☐	☐	☐	☐	☐

4. The instructor gives me valuable feedback on my assignments.	☐	☐	☐	☐	☐
5. The instructor adequately addresses my questions.	☐	☐	☐	☐	☐
6. The instructor encourages my participation.	☐	☐	☐	☐	☐
7. It is easy to contact the instructor.	☐	☐	☐	☐	☐
8. The instructor provides me positive and negative feedback on my work.	☐	☐	☐	☐	☐

Collaboration

	Never	Seldom	Sometimes	Often	Always
9. I work with others.	☐	☐	☐	☐	☐
10. I relate my work to other's work.	☐	☐	☐	☐	☐
11. I share information with other students.	☐	☐	☐	☐	☐
12. I discuss my ideas with other students.	☐	☐	☐	☐	☐
13. I collaborate with other students in the class.	☐	☐	☐	☐	☐
14. Group work is a part of my activities.	☐	☐	☐	☐	☐

Personal Relevance

	Never	Seldom	Sometimes	Often	Always
15. I can relate what I learn to my life outside of university.	☐	☐	☐	☐	☐

	Never	Seldom	Sometimes	Often	Always
16. I am able to pursue topics that interest me.	☐	☐	☐	☐	☐
17. I can connect my studies to my activities outside of class.	☐	☐	☐	☐	☐
18. I apply my everyday experiences in class.	☐	☐	☐	☐	☐
19. I link class work to my life outside of university.	☐	☐	☐	☐	☐
20. I learn things about the world outside of university.	☐	☐	☐	☐	☐
n1v3q21. I apply my out-of-class experience.	☐	☐	☐	☐	☐

Authentic Learning

	Never	Seldom	Sometimes	Often	Always
22. I study real cases related to the class.	☐	☐	☐	☐	☐
23. I use real facts in class activities.		☐	☐	☐	☐
24. I work on assignments that deal with real-world information.	☐	☐	☐	☐	☐
25. I work with real examples.	☐	☐	☐	☐	☐
26. I enter the real world of the topic of study.	☐	☐	☐	☐	☐

Active Learning

	Never	Seldom	Sometimes	Often	Always

	Never	Seldom	Sometimes	Often	Always
27. I explore my own strategies for learning.	☐	☐	☐	☐	☐
28. I seek my own answers.	☐	☐	☐	☐	☐
29. I solve my own problems.	☐	☐	☐	☐	☐

Autonomy

	Never	Seldom	Sometimes	Often	Always
30. I make decisions about my learning.	☐	☐	☐	☐	☐
31. I work during times I find convenient.	☐	☐	☐	☐	☐
32. I am in control of my learning.	☐	☐	☐	☐	☐
33. I play an important role in my learning.	☐	☐	☐	☐	☐
34. I approach learning in my own way.	☐	☐	☐	☐	☐

Distance education.

The following items refer to your satisfaction with distance education

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
35. Distance education is stimulating.	☐	☐	☐	☐	☐
36. I prefer distance education.	☐	☐	☐	☐	☐
37. Distance education is exciting.	☐	☐	☐	☐	☐
38. Distance education is worth my time.	☐	☐	☐	☐	☐
39. I enjoy studying by distance.	☐	☐	☐	☐	☐
40. I look forward to learning by		☐	☐	☐	☐

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
distance.					
41. I would enjoy my education more if all my classes were by distance.	☐	☐	☐	☐	☐
42. I am satisfied with this class.	☐	☐	☐	☐	☐

Interaction with your professor

The following items refer to your interaction with your professor

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
43. My teacher knows when to help and when to respect my independence	☐	☐	☐	☐	☐
44. I have a lot of personal interaction with my teacher	☐	☐	☐	☐	☐
45. My teacher checks in with me on a regular basis	☐	☐	☐	☐	☐
46. My teacher puts in a lot of effort	☐	☐	☐	☐	☐
47. My teacher cares about me	☐	☐	☐	☐	☐
48. My teacher is willing to help me when I have a problem	☐	☐	☐	☐	☐
49. My teacher provides extra resources and extra opportunities for practice	☐	☐	☐	☐	☐
50. My teacher uses a variety of media	☐	☐	☐	☐	☐

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
51. My teacher appears to puts in a lot of effort on this course	☐	☐	☐	☐	☐
52.My teacher shows genuine interest for the topic	☐	☐	☐	☐	☐
53. My teacher creates downloadable materials	☐	☐	☐	☐	☐
54. My teacher uses video while teaching a live course	☐	☐	☐	☐	☐
55. My teacher creates an organized online course	☐	☐	☐	☐	☐
56. My teacher works on our pronunciation and communication skills	☐	☐	☐	☐	☐

View of DL

The following questions refer to your view of distance learning

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
57. Online classes seem to move fast	☐	☐	☐	☐	☐
58. Online learning requires a lot of work	☐	☐	☐	☐	☐
59. I feel less emotional pressure in an online course	☐	☐	☐	☐	☐
60. It is easy to get distracted online	☐	☐	☐	☐	☐
61. Technical problems are rare	☐	☐	☐	☐	☐

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
online					
62. Online learning is convenient	☐	☐	☐	☐	☐

Autonomy2

	Never	Seldom	Sometimes	Often	Always
63. I take responsibility for my learning	☐	☐	☐	☐	☐
64. I am self-motivated	☐	☐	☐	☐	☐
65. I like working on my own	☐	☐	☐	☐	☐

Isolation

	Never	Seldom	Sometimes	Often	Always
66. I feel isolated from my professor and from my peers	☐	☐	☐	☐	☐
67. This course is like a self-study, correspondence like course	☐	☐	☐	☐	☐

Why did you decide to withdraw from the course? _____

_____

APPENDIX G
SEMI-STRUCTURED INTERVIEWS

Interview Protocol

Before we start, I just want to remind you that everything you say is confidential. That means that I won't talk about it with anyone – not your teachers or your parents, not anyone. Remember, you don't have to answer every question if you don't want to. I'm going to record it on our teleconferencing software, but no one will hear it but me. When I write my paper about this study, I might quote you, but I will give you another name and make
sure that I have hidden your identity. Do you have a name you want me to use for you?
_____

Okay, let's get started. I'm going to ask you some questions that I have written down. I might ask you some other questions, too, or ask you to explain one of your answers more.
Let's talk about learning Russian on line

1. Tell me some things you like and don't like about learning online.

What is your most favorite and least favorite thing about learning online?

2. What are your biggest fears of learning online?

3. Why do you think you will be successful in studying online?

4. What might make it difficult for you to study online?

How can your teacher help you?

5. What do you expect from this course?

6. How will you know that your expectations have been met?

What can your teacher do to help you?

7. How would you describe to someone how it feels to take an online class?

8 How is online learning different from learning in a classroom?

9. How is online teacher different than the teacher you see in person?

10. Describe a really good online teacher (you can talk about someone you know or you can imagine one).

11. Describe a really bad online teacher

If no mentioning of isolation, then ask: Sometimes people talk about feeling isolated in online courses- do you feel isolated or worry about feeling isolated?

What can the teacher do to prevent this?

12. Describe your ideal interaction with your teacher online

13. Describe a couple of interactions you had with your teacher online

What did you like about them? What did you not like about them?

14. What qualities should your teacher possess to provide successful instruction online?

15. What do you want your teacher to do to help your learning?

16. How and how often do you want your teacher to communicate with you?

How will you feel if this is not the case?

17. How would you want your teacher to react when you have a problem?

18. What could the teacher do to make you feel "connected" online?

19. How much help do you want from your teacher?

20. Do you need to feel that your teacher cares about you?

(if yes): What can your teacher do to make you feel that he/she cares about your success?

21. How can your teacher make you feel that he/she does not care about your success?

22. Do you have anything else you'd like to add to this interview?

APPENDIX H

ENHANCED DELES SURVEY

I understand that my participation is voluntary, anonymous, and would in no way affect my outcomes in the course. Please click "I Accept" button to proceed to the survey

I accept

School 1

School 2

Demographics:

Age	
Gender	
Year of studying Russian	
Have you taken distance classes before? Which ones?	
Other languages spoken	

Experiences in this course.
Please respond to the following statements.

	Never	Seldom	Sometimes	Often	Always
1. If I have an inquiry, the instructor finds time to respond.					
2. The instructor helps me identify problem areas in my study.					

3. The instructor responds promptly to my questions.	☐	☐	☐	☐	☐
4. The instructor gives me valuable feedback on my assignments.	☐	☐	☐	☐	☐
5. The instructor adequately addresses my questions.	☐	☐	☐	☐	☐
6. The instructor encourages my participation.	☐	☐	☐	☐	☐
7. It is easy to contact the instructor.	☐	☐	☐	☐	☐
8. The instructor provides me positive and negative feedback on my work.	☐	☐	☐	☐	☐

Collaboration

	Never	Seldom	Sometimes	Often	Always
9. I work with others.	☐	☐	☐	☐	☐
10. I relate my work to other's work.	☐	☐	☐	☐	☐
11. I share information with other students.	☐	☐	☐	☐	☐
12. I discuss my ideas with other students.	☐	☐	☐	☐	☐
13. I collaborate with other students in the class.	☐	☐	☐	☐	☐
14. Group work is a part of my activities.	☐	☐	☐	☐	☐

Personal Relevance

	Never	Seldom	Sometimes	Often	Always
15. I can relate what I learn to my	☐	☐	☐	☐	☐

	Never	Seldom	Sometimes	Often	Always
life outside of university.					
16. I am able to pursue topics that interest me.	☐	☐	☐	☐	☐
17. I can connect my studies to my activities outside of class.	☐	☐	☐	☐	☐
18. I apply my everyday experiences in class.	☐	☐	☐	☐	☐
19. I link class work to my life outside of university.	☐	☐	☐	☐	☐
20. I learn things about the world outside of university.	☐	☐	☐	☐	☐
n1v3q21. I apply my out-of-class experience.	☐	☐	☐	☐	☐

Authentic Learning

	Never	Seldom	Sometimes	Often	Always
22. I study real cases related to the class.	☐	☐	☐	☐	☐
23. I use real facts in class activities.		☐	☐	☐	☐
24. I work on assignments that deal with real-world information.	☐	☐	☐	☐	☐
25. I work with real examples.	☐	☐	☐	☐	☐
26. I enter the real world of the topic of study.	☐	☐	☐	☐	☐

Active Learning

	Never	Seldom	Sometimes	Often	Always
27. I explore my own strategies for learning.	☐	☐	☐	☐	☐
28. I seek my own answers.	☐	☐	☐	☐	☐
29. I solve my own problems.	☐	☐	☐	☐	☐

Autonomy

	Never	Seldom	Sometimes	Often	Always
30. I make decisions about my learning.	☐	☐	☐	☐	☐
31. I work during times I find convenient.	☐	☐	☐	☐	☐
32. I am in control of my learning.	☐	☐	☐	☐	☐
33. I play an important role in my learning.	☐	☐	☐	☐	☐
34. I approach learning in my own way.	☐	☐	☐	☐	☐

Distance education.

The following items refer to your satisfaction with distance education

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
35. Distance education is stimulating.	☐	☐	☐	☐	☐
36. I prefer distance education.	☐	☐	☐	☐	☐
37. Distance education is exciting.	☐	☐	☐	☐	☐
38. Distance education is worth my time.	☐	☐	☐	☐	☐
39. I enjoy studying by distance.	☐	☐	☐	☐	☐
40. I look forward to learning by		☐	☐	☐	☐

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
distance.					
41. I would enjoy my education more if all my classes were by distance.	☐	☐	☐	☐	☐
42. I am satisfied with this class.	☐	☐	☐	☐	☐

Interaction with your professor

The following items refer to your interaction with your professor

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
43. My teacher knows when to help and when to respect my independence	☐	☐	☐	☐	☐
44. I have a lot of personal interaction with my teacher	☐	☐	☐	☐	☐
45. My teacher checks in with me on a regular basis	☐	☐	☐	☐	☐
46. My teacher puts in a lot of effort	☐	☐	☐	☐	☐
47. My teacher cares about me	☐	☐	☐	☐	☐
48. My teacher is willing to help me when I have a problem	☐	☐	☐	☐	☐
49. My teacher provides extra resources and extra opportunities for practice	☐	☐	☐	☐	☐
50. My teacher uses a variety of media	☐	☐	☐	☐	☐

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
51. My teacher appears to puts in a lot of effort on this course	☐	☐	☐	☐	☐
52.My teacher shows genuine interest for the topic	☐	☐	☐	☐	☐
53. My teacher creates downloadable materials	☐	☐	☐	☐	☐
54. My teacher uses video while teaching a live course	☐	☐	☐	☐	☐
55. My teacher creates an organized online course	☐	☐	☐	☐	☐
56. My teacher works on our pronunciation and communication skills	☐	☐	☐	☐	☐

View of DL

The following questions refer to your view of distance learning

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
57. Online classes seem to move fast	☐	☐	☐	☐	☐
58. Online learning requires a lot of work	☐	☐	☐	☐	☐
59. I feel less emotional pressure in an online course	☐	☐	☐	☐	☐
60. It is easy to get distracted online	☐	☐	☐	☐	☐
61. Technical problems are rare	☐	☐	☐	☐	☐

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
online					
62. Online learning is convenient	☐	☐	☐	☐	☐

Autonomy2

	Never	Seldom	Sometimes	Often	Always
63. I take responsibility for my learning	☐	☐	☐	☐	☐
64. I am self-motivated	☐	☐	☐	☐	☐
65. I like working on my own	☐	☐	☐	☐	☐

Isolation

	Never	Seldom	Sometimes	Often	Always
66. I feel isolated from my professor and from my peers	☐	☐	☐	☐	☐
67. This course is like a self-study, correspondence like course	☐	☐	☐	☐	☐

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