

## **ABSTRACT**

BELAMARIC WILSEY, BILJANA. Ecological View of the Learner-Context Interface for Online Language Learning: A Phenomenological Case Study of Informal Learners of Macedonian. (Under the direction of Dr. Kevin Oliver).

Studies of informal language learning and self-instruction with online materials have recently come into prominence. However, those studies are predominantly focused on more commonly taught languages and there is a gap in the literature on less commonly taught languages (LCTL), precisely the languages that are often studied outside of formal settings. The current research aims to begin to fill that gap by examining the experiences of learners of Macedonian. Using a qualitative approach, the author presents an ecological perspective of the phenomenon of learning Macedonian informally as reported by the learners themselves through interviews. Eleven participants from Albania, Canada, Greece, Hungary, Macedonia, Russia, and the United States described how their learning context impacted their study through self-instruction with online resources (n=5) and with the additional help from tutors (n=6). The study results were presented through the lenses of Ecological Systems theory and Learner-Context Interface theory.

Most of the participants in the study reported support, albeit limited, for their Macedonian language learning and maintenance in their microsystem, as well as through Internet resources in their exosystem, whereas their macrosystem exerted a negative impact upon their language study. Most participants stated that their biggest obstacle was finding opportunities to practice the language and most participants were open to the remedy of practicing in virtual learning communities. All the participants used online means to search for resources, most were comfortable using online materials, and they considered them effective. In addition, all of the participants were simultaneously using multiple resources,

such as Web sites which stream Macedonian content (news, movies, music, and e-textbooks from Macedonia), Web sites which explain Macedonian grammar and vocabulary (such as the recruitment site for the study, the Macedonian Language E-Learning Center), online dictionaries and Google translate, Facebook, Skype, radio, online flashcards, and tutoring. These conclusions taken together point to a normalization of online technologies for LCTL study.

The researcher also found that most of the learners did not have specific goals and objectives on which they based their searches for and use of materials and technology, but instead had general end-goals, such as speaking Macedonian fluently. In addition, none of the participants spoke about evaluating the quality of the resources (including physical and human) that they found before starting to use them. Deducing from these two findings, it can be concluded that although the learners were experienced language learners (all of them had studied other foreign languages before), they still needed guidance on choosing effective resources and achieving their goals. This guidance is the task of instructional designers and tutors. Designers of materials for LCTLs need to be explicit about the goals and objectives on which resources are based in order to facilitate the learners' understanding of a path towards a goal. They also need to provide learners with information how to best navigate and adapt materials to fit their own needs and preferences. Furthermore, learners need to be educated that not all online resources are equally effective, trustworthy, or appropriate for their needs and they need assistance with learning to evaluate resources.

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Ecological View of the Learner-Context Interface for Online Language Learning:  
A Phenomenological Case Study of Informal Learners of Macedonian

by  
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A dissertation submitted to the Graduate Faculty of  
North Carolina State University  
in partial fulfillment of the  
requirements for the degree of  
Doctor of Philosophy

Curriculum and Instruction

Raleigh, North Carolina

2013

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## ACKNOWLEDGMENTS

The completion of this dissertation would not have been possible without the astute guidance and gentle encouragement of my advisor, Dr. Kevin Oliver, as well as the patience and support of Dr. Donna Petherbridge, Dr. Scott Despain, and Dr. Ellen Vasu, all of whom graciously agreed to serve on my dissertation committee. I am also thankful to the College of Education for awarding me the Doctoral Dissertation Support Grant, without which completing some of the research would not have been possible.

I also could not have completed the dissertation without the loving support of my husband and our daughters, who patiently and selflessly stood by while I focused on studying, research, and writing. I also want to acknowledge my parents, who instilled in me a love for learning and a yearning for high achievement. They are greatly missed. Thank you also to my brother, extended family, and friends, who helped me to stay on task and occasionally to veer off task in order to feel human again.

I am indebted to the volunteer participants in this study for sharing their language learning experiences with me. It was truly a privilege to get a glimpse into their daily lives and to be able to write down and pass on their stories and advice. Lastly, I am grateful to all the users of MLEC resources and to my students of Macedonian, who gave me a reason to carry on with this research even when my own life pulled me in different directions.

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# 1. INTRODUCTION

## 1.0. Background

According to the Web site of the U.S. National Council of Less Commonly Taught Languages (NCOLCTL), “[a]pproximately ninety-one percent of Americans who study foreign languages in our schools, colleges, and universities choose French, German, Italian, or Spanish; while only nine percent choose languages such as Arabic, Chinese, Japanese, Yoruba, Russian, Swahili and the other languages spoken by the overwhelming majority of people around the world” (NCOLCTL). Furthermore, among the less commonly taught languages, some languages are taught more frequently than others, leading some researchers to make a further distinction between less commonly taught (LCTLs) and almost never taught languages (ANTLs). One of these ANTLs in the United States is Macedonian, a South Slavic language spoken by the approximately two million citizens of Macedonia and even more immigrants living in the diaspora.

Languages like Macedonian are almost never taught for several reasons: lack of enough interest in any one geographical location to warrant offering a course through the formal educational establishment, lack of qualified and available instructors in any one geographical location, and lack of support for development of resources to teach these languages (i.e. no profit or no market for it). Bhatia and Ritchie (2009) name “demographics, cost, lack of pedagogical materials, and trained teachers” (p. 547) as constraints for teaching LCTLs and ANTLs. According to the U.S. Department of Education:

For many of these less-commonly-taught languages (LCTLs), the pool of interested students is small and demand for instruction is often irregular. Thus, many institutions cannot provide traditional language classes for these LCTLs. In order to offer instruction in many LCTLs, colleges and universities are turning to alternative solutions to traditional language instruction. Many institutions are developing new formats for teaching...

(<http://ed.gov/about/offices/list/ope/iegps/language-instruction.html>)

The pool of interested learners is even smaller and instruction even less regular for ANTLs. As a result, even in the few institutions where ANTLs are offered, they are not offered at all levels of proficiency (Garrett, 2009). The US Department of Education Office of Postsecondary Education explains that one of the new formats that could alleviate the challenges of offering instruction in LCTLs is online delivery. Therefore, one possible solution for these challenges for teaching ANTLs is to look to technological advances outside of the formal educational setting, to online learning, multimedia, and computer-mediated communication (CMC). Bhatia and Ritchie (2009) concur that Web-based instruction has helped overcome obstacles such as print costs and lack of print materials. But online learning can also potentially alleviate the obstacles of scarcity of learners and instructors in any one geographical area by expanding the reach globally. Because the instruction can be accessed from anywhere with an Internet connection, the pool of interested students and qualified instructors can be expanded beyond the local area served by a traditional face-to-face educational program.

Some of the aforementioned issues unique to the LCTLs and ANTLs also present challenges for research: few learners and few opportunities for learning one of these languages mean the population for research is small as well. Therefore, although many researchers have called for more research on the teaching and learning of the LCTLs (Felix, 2005; Garrett, 2009; White, 2006) and an issue of *Language Learning & Technology* dedicated to the LCTLs was published in February 2013, there is currently a large gap in the knowledge about how resources outside of the formal educational setting facilitate the teaching and learning of these languages.

Furthermore, nearly all the current research on language learning and technology is focused on the formal setting, including distance education through universities. But the informal online language learning context differs from formal language learning in many ways: it is more flexible because learners can access materials at their convenience, at a time and place that fits in with their everyday lives; learners have an opportunity to customize their curriculum by picking and choosing resources that are relevant to them; there are no grades or other external motivators so learners have to be driven by internal motivations; and learners have access to a variety of non-geographically-bound materials and resources, such as tutors from all over the world. There have been very few studies about language learners outside of the formal setting. Klein and Dimroth (2009) warn that basing what is known about language acquisition on experiences in the classroom, and as the author would argue in the formal learning settings, "risks missing crucial aspects of what really happens when our language capacities are at work" (p. 504). Similarly, Hubbard (2009) calls for more research

into how learners use computers on their own and what training content and processes can help them be more successful (p. 14). The formal setting of most research in language learning is inappropriate for studies of ANTLs because many learners of these languages do not have formal educational resources in place, and therefore study on their own, with the help of commercially available products, and more recently, resources available online. In conclusion, more studies are needed that target the population of learners using online resources for language study in an informal setting.

### **1.1. Purpose of Study**

Having established the need for research on populations learning languages informally through online resources, such as multimedia and CMC, this dissertation aims to begin to fill that need by examining the population of learners of one ANTL, Macedonian, who are using online resources provided by the Macedonian Language E-Learning Center to study Macedonian. As previously stated, learners of ANTLs have few opportunities for formal study of these languages and therefore turn to informal learning in an attempt to meet their goals. Therefore, targeting learners of ANTLs in a study about informal language learning limits the population to those who have few (or no) formal learning resources and thusly provides an opportunity to examine informal language learning with minimal or no interference from formal learning resources for those same languages.

Because research on informal language learning is scarce, in devising a framework for studying informal language learning, it is necessary to examine language learning theories from other areas, such as distance education. One such theory that can be applied to

informal language learning is the context-interface theory, developed by White (2003).

Drawing on an ecological perspective of learners, the context-interface theory is a constructivist learning theory that focuses on how the learners construct knowledge, define the context and themselves as learners as part of the process of negotiating with the learning context through an interactive interface. The ecological perspective (Bronfenbrenner, 1979, as cited in Siegler & Alibali, 2005) on learners is particularly relevant to research on adult learners, because it encourages educators and researchers to consider the learners as part of an ecological system, in which a multi-layered social context plays a large role in the learning process (Campbell Gibson, 1998).

Using Bronfenbrenner's ecological systems theory and White's context-interface theory as frameworks, the study answers the following research questions:

1. How does the learners' context (ecologically conceptualized) impact informal language learning with instructional multimedia and CMC (synchronous tutoring) online?
2. Furthermore, how do learners of Macedonian use technology for language learning that makes it possible for them to fit language learning into the totality of their lives? Are their processes effective?
3. What challenges or opportunities do the learners see?
4. Finally, what impact do these challenges and opportunities have on instructional design of materials and resources for informal language study of LCTLs such as Macedonian?

The study does not aim to show which elements of the context have an impact on the learning process, but whether and how the elements that were considered, identified from White's (2003) learner-context interface theory and Bronfenbrenner's (1979) ecological systems theory, impact learning a less commonly taught language such as Macedonian with instructional multimedia online.

## **1.2. Discussion and Definition of Terms**

Before outlining the significance of the study and presenting an overview of the approach and organization, it is necessary to first define some of the concepts and terminology used throughout the dissertation.

### **1.2.1. Defining the Formality of the Learning Setting**

Several researchers have written about the settings where learning takes place and regardless of differences in classification or terminology, the researchers agree that learning does not only take place in formal settings such as schools, but also through day-to-day activities, on the job, and in the community. The traditional view identifies three separate settings: formal, non-formal, and informal. The formal setting has been described as schooling or education in a highly institutionalized, bureaucratic, curriculum-driven, and formally recognized setting involving grades, diplomas, and certificates (Merriam, Caffarella & Baumgartner., 2007; Merriam & Clark, 2006). Non-formal learning is curriculum-based and facilitator-led, but occurs outside of the formal educational system, as a complement to formal learning (for example, for people who dropped out of a formal educational institution), or an alternative to formal learning (for example, for indigenous populations and

community-based learning), or a supplement to formal education (for example, for emerging or burning issues that have to be addressed immediately) (Merriam et al., 2007; Merriam & Clark, 2006). The most prevalent setting of adult learning is informal, which is spontaneous and unstructured learning that is embedded in daily life. In this type of learning, there is often no externally-specified curriculum. Based on intentionality and awareness at the time of the learning experience, Merriam et al. (2007) distinguish three forms of informal learning: self-directed, incidental, and socialization or tacit learning. Self-directed learning is intentional and conscious whereas incidental learning takes place without learners being conscious of it, but learners can discover that learning occurred through subsequent reflection and intentional exploration (Marsick & Watkins, 2001). Socialization or tacit learning is neither intentional nor conscious, but like in incidental learning, learners can subsequently become aware that learning has taken place (Merriam et al., 2007).

In contrast to Merriam et al. (2007), Mocker & Spear (1982) conceptualize self-directed learning not as a subset of informal learning, but as a separate category in a system based on who represents the locus of control of the learning process and whether the learning objectives are devised by the individual or institution. This system is illustrated in Figure 1.

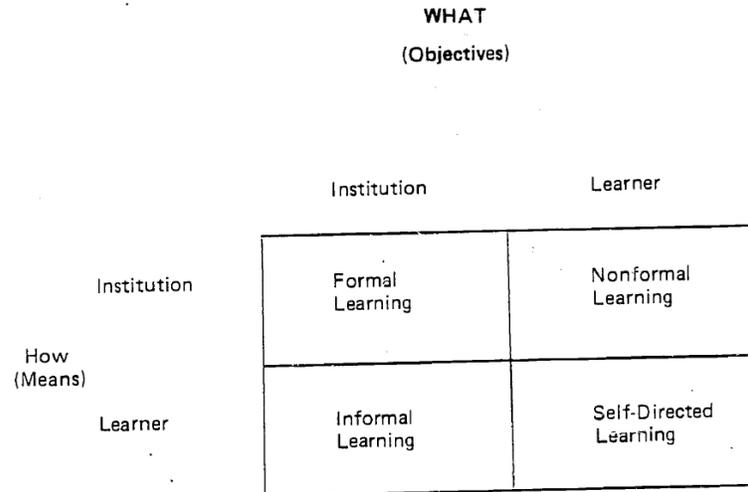


Figure 1. Mocker & Spear's system of formality of the learning setting (1982, p. 4).

According to this system, even if learning occurs in a non-traditional setting (i.e. outside of a formal educational institution) or via non-traditional means (for example, via radio), it is still classified as formal learning if the objectives and teaching processes are determined by someone other than the learner. Similarly, if a learner decides they want to improve a skill but they enroll in a university to do it, because the learner determines what he or she wants to study, the situation would be classified as non-formal learning. This understanding of the terms is inconsistent with other researchers' use of the terms, but there are differences in framework classifications across the field. For example, Marsick & Watkins (2001) include on the job training and training with professional service firms as informal education (e.g. performance planning that includes opportunities to review learning needs), even though these often involve a facilitator, which is more characteristic of non-

formal learning as defined by Merriam et al. (2007) and which would be defined as formal education based on Mocker & Spear (1982) because both the objectives and means of the learning process could be defined by the institution or in this case, employer.

Other researchers have criticized the entire learning settings framework for being pieced together from terms that arose in different contexts and historical periods. For example, the phrase “informal education” was used by J. Dewey to distinguish between in-school learning and outside of school learning, whereas “informal learning” was used by M. Knowles in the 1950s in describing adult education, and the phrase “non-formal education” was coined by P. Coombs in 1968 because formal education was failing in the post-war era (Rogers, 2004; Zurcher, 2010). Lastly, self-directedness rose into prominence from adult learning theories in the 1970s and 1980s (Caffarella & Merriam, 2000; Merriam et al., 2007). Another weakness of the classification for practical use includes not taking into consideration that an individual might engage in informal or self-directed learning while in a formal setting (Zurcher, 2010). Furthermore, non-formal learning has been used in third world countries until a formal learning system is set up (therefore in effect acting as a formal learning system) and has in different places subsumed education set up by ministries of the government, in other places by non-government organizations, in yet other places anything not taught in schools and colleges, including radio, TV, and print media (Rogers, 2004; Zurcher 2010). Non-formal learning has at times meant child-age education, other times education for children older than school-age, and has also been used to describe lifelong learning for adults (Rogers 2004, Zurcher 2010). Looking to the future, Rogers (2004)

criticized the typology by questioning whether it is possible to place new ways of learning such as distance education, e-learning and commercial universities on the continuum of learning formality, that is if one conceptualized the terms as belonging to a continuum. Zurcher (2010) provides an overview of systems that have been conceptualized to graph the relationship between formal, non-formal, informal, and self-directed learning and education and himself proposes a matrix in which each of a set of criteria can be positioned on a scale from informal(ized) (individualized) to formal(ized) (generalized, systematized and standardized). Therefore, an "ideal" informal teaching learning process would have dots on the left side of the continuum for each of the characteristics whereas an "ideal" formal teaching-learning process would have dots on the right side of the continuum for each of the characteristics, as illustrated in Figure 2.

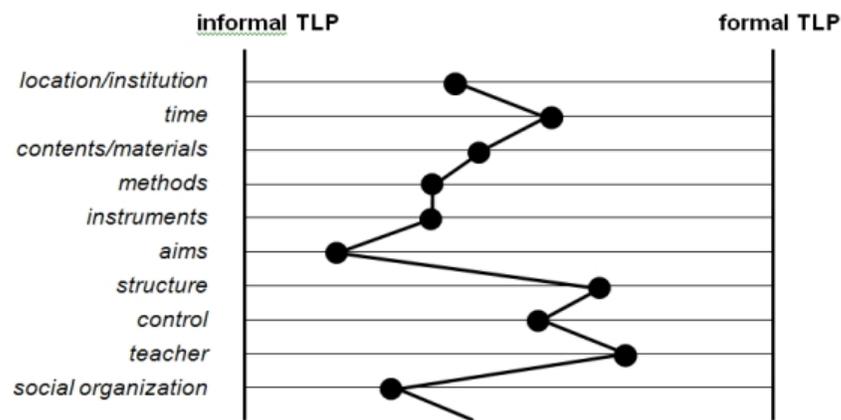


Figure 2. Zurcher's (2010) unified curriculum.

Zurcher (2010) warns that specific kinds of teaching-learning, such as coaching, for example, cannot be placed in the matrix; instead, the matrix can show only the characteristics of that kind of teaching-learning that fit into the model's criteria and are exhibited in a given moment, because teaching-learning is dynamic and variable in the course of time. This feature is a weakness of his system, because the purpose of devising a system in the first place is to be able to group teaching-learning processes and analyze them as a group, which cannot be done if specific kinds of teaching-learning cannot be placed in the matrix.

For the purpose of this dissertation, formal learning is defined as learning that is directed by a representative or representatives (instructor, teaching assistant, co-teachers, or a teaching team) of an educational institution, such as a school or university, regardless of the age of the learner. This definition includes distance education classes, in which learning is directed by a university-appointed authority and for which curricula and syllabi are predetermined by the traditional educational establishment. In contrast, informal learning is defined as learning that takes place outside of the traditional educational establishment, including on-the-job training, consultant-led training, tutoring, community workshops (for example, library classes), self-directed and incidental learning. In this definition, informal learning has a broader scope than in other definitions and subsumes what has previously been defined as non-formal learning. The curriculum in informal learning, thusly defined, can be set by the learners themselves or an instructor, tutor, or consultant, but that curriculum is not endorsed by a school or university. While the same materials (e.g. textbooks or Web sites) may be used for learning in the formal setting and in the informal setting, their application

will be different in these two settings. In the formal setting, these materials are part of a curriculum that also requires the learner to produce proof of learning, such as through assignments and assessments, for which the learner is provided feedback and (in most cases) rewarded with a grade. In the informal learning setting, the proof of learning is not required; instead it is up to the learners to evaluate their own learning and seek out further resources (including assessments) if they feel that they need them. Learners can check their knowledge and receive feedback (such as from an instructor, consultant, tutor, or computer program), but that feedback is for the learner's own benefit and is not formalized through a grade.

Language learning in the thusly defined informal setting takes place outside of the educational establishment and is devoid of grades and other similar external motivators. The learners may use self-instructional tools: commercial software, such as Rosetta Stone or Berlitz, self-access learning centers, or join online language learning communities, such as Babbel (<http://babbel.com>) and Livemocha (<http://livemocha.com>). These resources are often not available for ANTLs, such as Macedonian, because of a perceived lack of profitability for those markets. But, there is one online language learning resource that is available for Macedonian, and it is the informal learning environment provided by the non-profit organization, Macedonian Language E-Learning Center (<http://macedonianlanguage.org>), that is included in the present investigation.

### **1.2.2. Distance Education and Learning, Online Learning, and E-learning**

These terms were already used in the previous section and warrant further clarification. The terms distance education, online learning, Web-based learning, virtual

learning, e-learning and others are defined differently by various writers. Keegan (1996) distinguishes between distance and virtual education based on the types of interaction facilitated between the learner and instructor and learners among themselves: distance education is predicated on apersonal or impersonal interaction (sometimes mediated by technology) between the learner and instructor or learners among themselves, whereas in virtual education, face-to-face interactions have been recreated electronically (as cited in Fleming & Hiple, 2004, p. 64). Other scholars have referred to virtual learning and online learning interchangeably, considering this type of learning a subset of distance education (Keengwe & Kidd, 2010). The difference between online or virtual learning and distance education for these scholars seems to be one of technology use, with the former delivering content via various electronic media and the latter subsuming both delivery of content through electronic and through non-electronic media, as would be the case perhaps with correspondence courses. However, these definitions do not take into account the setting (formal or informal) in which the learning takes place. For example, Hubbard (2009) describes online learning as a “natural extension of earlier forms of distance education” (p. 12) despite the fact that online learning can occur outside of a course offered through distance education.

The formality of the setting needs to be considered in defining the terms, and therefore, the term distance education is used in the review of literature in this dissertation to denote the formal educational setting whereas Web-based learning, online learning, and e-learning is used to denote learning that can take place both in the formal and informal

settings. This understanding predicates Merriam et al.'s (2007, p. 38) statement that although distance and online learning can take place in formal, non-formal, or informal settings, research on the topic has mostly focused on formal learning settings, i.e. on distance education.

### **1.2.3. Less Commonly and Almost Never Taught Languages**

The less commonly taught languages (LCTLs) are a large group of languages that are taught as foreign languages in few institutions in the U.S. They are defined by exclusion, i.e. languages other than English, Spanish, German, and French. In Europe, these languages are often termed “lesser taught.” Even though these languages are not widely taught in the U.S., it is important to learn them for reasons of national security, economic interest, cultural value, and social justice; researchers of many fields conduct research in the countries where these languages are spoken; peace corps volunteers and missionaries also work with populations in these countries; and many professionals work in immigrant communities speaking these languages. Furthermore, second and third generation immigrants, who perhaps did not learn these languages from their parents, are often interested in recovering their cultural heritage by learning the language of their forefathers. The importance of learning an LCTL is supported by the US government, which offers special funds to persons and institutions that study and teach these languages through programs such as Foreign Language and Area Studies (FLAS) Fellowships, Fulbright-Hays Faculty Research grants, Language Research Center grants etc. Some of these programs are funded through Title VI

of the Higher Education Act, whereas others through the Fulbright-Hays Act. Many universities can afford to offer LCTLs only because of the availability of these grants.

Among the LCTLs, there are some that are almost never taught (ANTLs). This term has been used by Friedman (2007) to describe Romani, by Garrett (2009) to describe Indonesian, Dari, Quechua, and Sango, and by Bhatia and Ritchie (2009, p. 547) to describe many of the languages of Asia and Africa. Another example of an ANTL is Macedonian. Looking at offerings in higher education, in North America, there are less than ten universities currently offering any instruction (including as independent study) in Macedonian (Center for Advanced Research on Language Acquisition, <http://db.carla.umn.edu/lctl/FMPro>), whereas in Australia, Macedonian had been offered at Macquarrie University but the course offerings were eliminated in 2011. There are some opportunities for studying this language at the elementary and secondary school level (especially in parts of Australia), but fewer such opportunities than for other LCTLs. Therefore, studying the case of Macedonian is ideal for assessing how Internet technologies can impact the teaching and learning of a language that is taught less and less commonly in the formal educational setting.

#### **1.2.4. Macedonian Language and Instruction**

Macedonian is the administrative language of the Republic of Macedonia, an Eastern European country located north of Greece, south of Serbia, west of Bulgaria, and east of Albania. Macedonian is a South Slavic language, sharing that designation with Bosnian/Croatian/Serbian, and Bulgarian. It is written in the Cyrillic script. The population

of Macedonia is slightly more than 2 million and 66.5% of the population speaks Macedonian as a native language (CIA Factbook). Although there are many native speakers of Macedonian outside of Macedonia, mostly Macedonian immigrants and their descendants in the diaspora, there are no conclusive numbers of native speakers of Macedonian outside of the country. Conservative estimates place the number in the hundreds of thousands, whereas other estimates range up to 3 million speakers worldwide.

According to the Center for Advanced Research on Language Acquisition, currently Macedonian can be studied at only a handful of institutions in North America: Ohio State University (Columbus, OH), University of Chicago (Chicago, IL), University of Toronto (Toronto, Canada), Indiana University (Bloomington, IN), Butler University (Indianapolis, IN), Cornell University (Ithaca, NY), and Arizona State University (Tempe, AZ) (<http://db.carla.umn.edu/lctl/FMPro>). Only the University of Toronto offers instruction beyond the intermediate level, Cornell offers Macedonian only as an independent study reading course, and Butler only as a study abroad program to Sydney, Australia. None of these institutions offer the course online, but the researcher recently created the first online course for Macedonian, offered through the University of North Carolina – Chapel Hill Friday Center for Continuing Education program.

In addition to a number of Web sites and blogs that provide readings about Macedonian grammar, which could be used by self-directed learners, there are two opportunities for more structured learning of Macedonian online: one is informally through the free asynchronous multimedia materials for self-study at the Macedonian Language E-

Learning Center Web site, <http://macedonianlanguage.org>, which is the site for the present study. This Web site also provides synchronous tutoring, but this feature is not its main focus. The other opportunity is through the Web site <http://ucimakedonski.mk>, where learners engage synchronously in a digital classroom with a teacher and classmates. This Web site also provides digital materials for self-study, but this does not seem to be the primary focus. This Web site states that the materials were developed in conjunction with the Institute for Macedonian Language in Skopje, Macedonia, but this institute does not endorse the Web site anywhere on its Web pages. No credit or grades are provided by any formal educational institutions for learning through these Web sites, so the setting in which the learning is occurring in both of these cases would be classified as informal, based on the definitions earlier presented.

#### **1.2.5. Constructivism**

The theoretical approach underlying the present research is rooted in constructivism. One of the basic premises of this approach is that “humans construct all knowledge in their minds by participating in certain experiences” (Roblyer, 2006, p. 37), rather than acquiring it through transmission, as advocated by other approaches. Constructivism developed in the 1990s from a branch of cognitivism and, like cognitivism, proposes a mentalist perspective on creation of knowledge, i.e. knowledge is a mental construct. However, unlike cognitive learning theories which focus on information processing in the brain, constructivism focuses on “adaptation and management of learning and of the environment” (Driscoll, 2004, as cited in Davidson-Shivers & Rasmussen, 2006, p. 46). Therefore, a focus of constructivism is on

the social context and the social interactions which facilitate learning. The social experience is considered the object of study not "random noise" to be eliminated (Chapelle, 2009, p. 747).

Some of the scholars who have made significant contributions to the development of constructivism as a learning theory are John Dewey, Lev Vygotsky, Jean Piaget, Jerome Bruner, and Howard Gardner. In applied linguistics and language pedagogy, Lev Vygotsky's ideas are especially influential, and constructivism is translated into sociocultural theory (SCT). Specific to language learning, SCT posits that language has a dual role of a mediating tool and a learning object (Kasper, 2009). Language learning is more than acquiring a lexicon in a foreign language (Lantolf & Thorne, 2006; Magnan, 2008) but "acquiring new conceptual knowledge and/or modifying existing knowledge as a way of re-mediating one's interaction with the world and with one's own psychological functioning" (Lantolf & Thorne, 2006, p. 5).

#### **1.2.6. Ecological Systems Theory**

Since constructivism establishes the importance of the social environment for learning, ecological systems theory can be used to dissect that environment in order to study and understand it better. Originally developed by cognitive psychologist Urie Bronfenbrenner as a theory of child development, ecological systems theory dissects the social environment within which development (and learning) occurs into several nested sub-environments: the microsystem, mesosystem, exosystem, macrosystem, and chronosystem (1979, as cited in Leonard, 2011). The microsystem involves the daily face-to-face

interactions of the learner with his or her immediate surroundings: family, instructors, co-workers, friends, church. The mesosystem is a larger sub-environment comprised of lateral connections between microsystems and the individuals within those microsystems. For example, the mesosystem of a distance education learner could include "interactions among the distance learning institution, the family, the workplace, the community, and perhaps a religious institution, and other contexts unmentioned" (Campbell Gibson, 1998, p. 115). The exosystems include social settings and/or people who are indirectly involved in the learner's development: the neighborhood, mass media, communication and transportation systems, school or workplace administrators, educational policies and policy-makers, innovations in technology, or developments in opportunities for learning. The macrosystem refers to the outermost layer of the environment; the society's customs, beliefs, values, laws, traditions, economy, resources, hazards, life styles. In other words, the macrosystem comprises the culture or subculture which impacts the micro-, meso- and exo-systems (Campbell Gibson, 1998, p. 116).

Leonard (2011) praises this framework for analyzing learning settings because "it is expansive, yet focused; one eye is trained on the complex layers of school, family and community relationships, and the other eye is sharply focused on individual student development" (p. 990). Tissington (2008) points out the applied significance of this theory because it suggests that intervention in any of the sub-environments can enhance development. Campbell Gibson (1998) examines this theory in the distance education setting, reminding the reader why it is important to consider the broad social context within which

distance learning occurs: because this social context "can profoundly affect the success of the distance teaching-learning transaction" (p.113). Ecological systems theory has similar benefits for examining learning in the informal settings. It is appropriate for the present study because it takes into consideration and analysis the totality of adult learners' lives and provides a framework for examining the impact of each of the environmental layers onto the learner's outcomes.

### **1.2.7. Learner-Context Interface Theory**

Specific to the distance language learning setting is White's learner-context interface theory, the first theory that aims to identify the essential components of language learning at a distance (White, 2003). The theory exhibits constructivist and ecological leanings, because it envisions the language learners in charge of their own learning, actively constructing knowledge through a dynamic interface with the learning context. All three of the dimensions of the theory, the learner, context, and interface, are broadly conceptualized and defined. The learner dimension includes not only learner demographics, learning preferences, styles, motivation, past experiences with language learning, and prior knowledge, but also beliefs, attitudes, learner self-concepts, conceptualizations of the teacher and of the learning environment (White, 2003, p. 90). The context includes learning sources, support, spaces, opportunities for interaction, teacher(s), the distance learning community, features of the learner's immediate learning environment, and other human and material resources (White, 2003, p. 91). The interface "is both the place at which and the means by which learner and context meet, interact, and affect one another " (White, 2003, p. 91) and these interactions

can be both positive (if the learners' needs or expectations are met and they successfully interact with the context) or negative (if the learners' needs or expectations are not met by some feature of the context and therefore learning is impeded).

The broad conceptualizations of the learner and context can be made more specific and useful for research by superimposing the structure provided by ecological systems theory. This innovation is in line with the broad conceptualization of the learner-context interface theory, as ecological systems theory also presents a broad picture of the learners' development through interactions with various levels of their environment. However, this innovation also provides more tangible areas of influence to examine in an investigation of how learners construct the interface and interact with the context via the interface. Essentially, it provides five general groups of strands across the interface (for each sub-environment proposed by ecological systems theory) through which the learners' interactions with the context can be organized, more easily observed, and examined.

Specific to the present study, these strands of organization are most evident in the first research question, regarding the impact of the ecologically conceptualized learners' context on informal language learning with instructional multimedia and CMC (synchronous tutoring) online. The second and third research questions are focused on the interface component of White's theory but also take into consideration the ecological systems' impact on this component. The final research question considers the practical significance of the findings from the first three questions by relating them to instructional design of materials

and resources for informal language study of less commonly taught languages such as Macedonian.

### **1.3. Significance of Study**

The relevance of the research is multifold. Firstly, many leading scholars have called for more research on the less commonly taught languages (Felix, 2005; Garrett, 2009; White, 2006). Research on the almost never taught languages is even more sparse. The study addresses this gap in the literature.

Secondly, nearly all the current research on language learning and technology is focused on the formal setting, including distance education through universities. The formal setting of most research in language learning is inappropriate for studies of less commonly languages because many learners of these languages do not have formal educational resources to turn to, and therefore study on their own, with the help of commercially available products, and more recently, resources available online. Therefore, this study targets the population of learners using online resources for language study in an informal setting.

Thirdly, the current research is relevant because it embraces White's (2005) challenge to develop and critically evaluate her learner-context interface theory. This theory, originally developed for distance language learning, is applied to the informal online learning setting examined in the current research and enhanced through the superimposed organizational framework of the ecological systems theory of cognitive development (Bronfenbrenner, 1979, 1995). Furthermore, there have been no previous attempts at such a cross-disciplinary

merging of theories to evaluate the process of informal language learning. The present study takes into consideration concepts and theories from distance education, adult learning, language acquisition, language pedagogy, and cognitive psychology.

Finally, the outcomes of the research have significance for instructional design. One of the research questions specifically focuses on the impact of learner-reported challenges and opportunities in informal language learning in the instructional design of materials and resources. Gaining a better understanding of how informal language learning fits into the totality of the learners' lives helps designers produce more useful and usable instructional materials for these learners.

#### **1.4. Overview of Approach**

Because the research questions are concerned with describing the essence of the phenomenon of informal language learning online and not a cause-effect relationship, the research paradigm employed is qualitative. Furthermore, the research methodology is a phenomenological case study. Phenomenology was chosen as the methodological approach because the study is centered on the experiences of the phenomenon of adults learning Macedonian online outside of the educational establishment. This approach leads to a practical understanding of meanings and actions (Miles & Huberman, 1994, p. 8), especially what events and interactions mean to ordinary people (Bogdan & Biklen, 2007, p. 25; Moustakas, 1994, p. 13). The goal of the phenomenological researcher is to understand the participants' "Lebenswelt" (lifeworld) and point of view (Bogdan & Biklen, 2007, p. 26). Therefore, it is a good match for examining the experiences of informal learners of

Macedonian through online resources as part of the totality of their lives and lifeworlds, including what meanings those experiences carry for the learners themselves.

The research also represents a case study, which can be defined as a study "of an issue explored through one or more cases within a bounded system (i.e., a setting, a context)" (Creswell, 2007, p. 73). The current study examines the case of learning Macedonian informally online through the resources available on the Web site of a non-profit organization, the Macedonian Language E-Learning Center. Therefore, the study is bounded both by language (Macedonian) and site (the Macedonian Language E-Learning Center).

The study reviewed the experiences of two groups of participants: one group that has been learning Macedonian using the asynchronous multimedia resources on the Web site ("untutored" group), and another that has in addition been using synchronous tutored instruction ("tutored" group). The participants' experiences were solicited through a series of interviews and some participants also wrote journals reflecting on their language learning process and progress. Therefore, data sources included the interview transcripts, field notes from an observation, learners' reflections and study notes. As required by the chosen phenomenological research design, the data analysis involved several iterations of reading, writing, and configuration of meaning from the data over an extended period of time until themes emerged. As the themes emerged, the textual data was organized and compared through Atlas.ti and with graphic organizers, as proposed by Miles and Huberman (1994).

### **1.5. Organization of Study**

The study proceeds with an evaluation of the current literature on ecological language learning, ecological systems theory (Bronfenbrenner, 1979) from the field of cognitive psychology, and learner-context interface theory (White, 2003) from distance language learning. Therefore, a cross-disciplinary framework emerges for conducting the research. This framework is then used to discuss findings related to each of the research questions.

In the methods chapter, the approach for conducting the research as a phenomenological case study is explained. Specifically, the author outlines the research design, sample selection, data collection, and the study's reliability and validity, as well as limitations. Keeping in line with guidelines for conducting phenomenological research, a subjectivity statement is also included. This statement outlines the author-researcher's own epistemological views on research and language learning, and discloses the relationship with the learners-subjects and the site where the research was conducted.

The two final chapters of the dissertation discuss the data analysis, results, and conclusions that can be drawn from the data. The study concludes with identifying potential research topics for further study.

## **2. LITERATURE REVIEW**

### **2.0. Introduction**

This literature review begins with an overview of the theoretical perspectives that have shaped the research questions and approach in the proposed study. Specifically, ecological approaches to second language acquisition, Bronfenbrenner's ecological systems theory, and White's learner-context interface for distance language learning are discussed. In the second part of the literature review, the focus is shifted to previous studies and conclusions relating to the research questions that are the focus of the proposed study. The reviewed studies utilized different methods, theoretical approaches, and examined different populations of learners in different contexts than the proposed study, but the results from these studies are the bases for comparison of the results from the proposed study in the discussion section.

### **2.1. Theoretical Perspectives**

#### **2.1.1. The Ecology of Second Language Acquisition**

The ecological approach is one line of research in second language acquisition (SLA) that has gained prominence very recently (Blyth, 2009; Ingeborg, 2007; Lafford, 2009; Menezes, 2011; Tudor, 2001; van Lier, 2003, 2004). Among other evidence, the emerging popularity of this approach is evidenced by two accounts of course offerings, in 2002 and 2004, and one panel-format event at the CALICO (Computer Assisted Language Instruction Consortium) 2009 conference all focusing on this topic. Van Lier (2004) describes his graduate seminars on The Ecology of Language Learning at the University of Auckland and

at Pennsylvania State University, State College, offered in 2002; and Kramersch (2008) provides an account of the 2004 Berkeley course Language Ecology, which focused specifically on interdisciplinary explorations of "language within its individual, societal, cultural, and historical frameworks" (p. 390). Thorne and Smith (2011) recount that one of the four primary orientations of established approaches to SLA research with respect to technology-mediated language learning is ecological, as evidenced by the panel on Ecological Approaches to SLA and Technoogy at the CALICO 2009 conference. The panel was organized by Leo van Lier and described thusly:

Ecological approaches to SLA are premised on a holistic view of human-world interrelations and the notion of affordance-effectivity pairings that help to better understand human activity and functioning. To many educators, technology and ecology are irreconcilable opposites. Yet, educationally speaking, they turn out to be perfectly compatible. This presentation examines the ways in which the Internet is an emergent resource, a social tool, and a multimodal repository of texts. The ecological affordances of CALL will be illustrated in terms of activity through, with, at and around computers.

(Thorne & Smith, 2011, p. 269)

The ecological approach to language and language learning is not a contextual method or theory but a worldview that can motivate a variety of research approaches and methodologies (Van Lier 2004, p. 205). This view includes the notions of a consistent theory of language, semiotics and meaning-making through dialogue; a physical, social, and

symbolic context; situational activities rooted in time, space, and a person's self and identity; a critical evaluation of the quality of learning environments and educational activities; and variation and diversity as intrinsically valuable (Van Lier, 2004, p. 21). Lafford (2009, pp. 674-675) elaborates on this ecological approach thusly:

- language learning is a context-situated phenomenon (which includes nested linguistic ecosystems) and relational (dynamic process of negotiation between learner and environment);
- ecological linguistic analysis focuses on relationships and processes rather than products and outcomes;
- language learning is functional rather than only grammatical, it occurs through interaction and socialization into communities of practice;
- language learning is situated in the time and place of speech situations that define learners' communicative needs;
- feedback to learners should be flexible, adaptive, and context-based;
- research and language-learning activities should reflect real-world tasks;
- this perspective is value-laden and potentially interventionist.

While an explicitly ecological perspective for studying language learning is relatively recent, the ecological perspective has long been applied to studies in other fields, including as a metaphor in fields such as psychology (Menezes, 2011). From its establishment as a scientific discipline in the mid-19th century, ecology has developed into two directions: trying to assess and mitigate human impact on the environment (such as in the fields of

environmental science, waste management, reforestation, etc.) and trying to understand the full complexity of the environmental processes (such as in the fields of systems theory, cybernetics, chaos and complexity theory, and ecological linguistics) (van Lier, 2004). An ecological view of linguistics is closely related to the socio-cultural theory approach (SCT) (Berglund, 2009), which, as stated in the introduction to this study, views cognitive development and learning as historically constituted and situated in social practice (Lantolf & Thorne, 2006; Kasper, 2009).

Most of the publications within the ecological linguistic perspective continue to focus on the classroom (Borrero & Yeh, 2010; Ingeborg, 2007; Tudor, 2001; van Lier, 2003, 2004; Warschauer, 1998) and distance education (McCann 2004; White, 1999). An ecological perspective also takes into consideration the experiences and relationships of the learners (and sometimes teachers as well) outside of the formal learning environment, which are considered important for forming the identity those learners (and teachers) bring into the classroom and therefore into the learning process, but the primary interest in these publications has remained the formal educational setting. Lam and Kramersch (2003), Palfreyman (2006, 2011), Barrett (2008), Thorne, Black and Sykes (2009), Kurata (2011), Nielson (2011) and a collection of research papers edited by Benson and Reinders (2011) represent counterexamples by examining employee training, self-instructed language learning, distance language education organized by a corporation, and informal learning in physical and online social communities. However, several of these studies (Kurata, 2011;

Palfreyman, 2006) recruited participants from the university setting, which is a limitation of the studies.

Van Lier (2004) describes several relationships that are studied in ecological linguistics: between language and the physical environment, language and the social/cultural environment, between and among languages, and between the learner and the learning context. The research questions that fuel the proposed study are focused most of all on the relationships between the learner and the learning context, broadly defined with the help of Bronfenbrenner's ecological systems theory and White's learner-context interface theory, which are elaborated on next.

### **2.1.2. Bronfenbrenner's Ecological Systems Theory**

The developmental psychologist Urie Bronfenbrenner outlined ecological systems theory drawing on earlier work of Kurt Lewin and the notion that human development (and learning) occur in multiple contexts (Campbell Gibson, 1998). Bronfenbrenner's theory has since been applied not only in developmental, child, and educational psychology, but also in other educational research. For example, McCann (2004) applied this theory to an investigation of how graduate students construct their learning in an online course, Tissington (2008) applied it in examining the transition to formal teaching of alternative certification candidates, and Leonard (2011) applied it to determine the effect of school-community partnerships on student development and success in an urban U.S. high school. In language teaching, examples include Van Lier's (2003) application of this theory as a framework for research with educational technology for language arts in a U.S. elementary

school and in an intensive English as a Second Language (ESL) program at a U.S. university, and Borrero and Yeh's (2010) English language learning research in an urban public high school in San Francisco, CA. This theory is useful for research espousing an ecological worldview because it is activity-based and focused on the connections within and across nested systems (van Lier, 2003, 2004).

These nested sub-environments include the microsystem, mesosystem, exosystem, macrosystem, and chronosystem (Bronfenbrenner, 1979, 1998). The microsystem, the individual's direct social interactions, includes other learners, instructors, tutors, and native speakers, among others, in the learner's immediate environment. The mesosystems are the multiple interrelated microsystems and can be manifested in language learning in the form of support (such as available time and resources), that is available for language learners to study and practice the language. Therefore, these two systems together account for the research questions (posed in the present study) how learners locate and use resources to support their study of the language, what support they have to learn and practice the language in their immediate communities, as well as how these factors influence the learners' motivation.

The exosystems are social systems with which the individual does not interact directly but that influence the individual's development, such as systems that determine the required curriculum. In a distance language learning context, the impact of the exosystems could be perceived in the features of the distance course. In an informal online language learning context, such as the one examined in this research, the exosystems include the various curricula and resources that the learners located and are using as well as the lack of

opportunities they may have discovered in the formal learning setting. Relating to the research questions posed in the study, these factors exert influence or limit the choices learners can make to achieve their language learning goals.

The macrosystem, the broader cultural context, includes issues of power, cultural codes and expectations, socialization practices, and other considerations of a wider view of context as described in the field of adult learning. Tudor (2001) accounts for this broader cultural context in language learning by focusing on socialization practices such as the influence of sociocultural traditions (SCT) of learning on what he terms the mental component of context, which includes - among others - the learners' perceptions of the teaching-learning process and teachers'/learners' roles in that process, on their definitions of goals, and on their interaction with methodology and technology. But the macrosystem also accounts for learners' notions of the importance of studying a particular topic, such as a foreign language, and also plays a role in limiting the choices learners have to study that language. The macrosystem influences the learner's identity, whether as a member of the native culture (speaking the native language), the target culture (speaking the target language), or somewhere in between, "a third place," located at the intersection of multiple native and target language learning cultures (Kramsch, 1996).

Lastly, the chronosystem accounts for the change in all of the other sub-environments over time. For example, the interaction of the chronosystem with the macrosystem is evident in increasing globalization and technological innovation, both of which impact learners and the learning process by providing or denying learning opportunities, and supporting or

impeding learning. The interaction of the chronosystem with the microsystems and mesosystems account for the nurture portion of a learner's development from childhood into adulthood. The chronosystem, while an important part of the theory, is not explicitly addressed in the research questions of the proposed study, since the snapshot in time that the investigation is capturing is too short to be able to assess the impact of this subsystem.

### **2.1.3. The Learner-Context Interface Theory**

Looking for an ecological theory of language learning in adult and distance education, one turns to the learner-context interface theory, described by White (2003) as "the first attempt within the [language learning at a distance] field to provide a theory of distance language learning and also to identify essential aspects of distance language learning" (p. 89). The three elements of this theory are the learner, context, and the interface of the learner with the context.

Drawing on the theories of distance education and language learning, White (2003) defines the learner dimension in her theoretical model as the characteristics, attributes, conceptualizations, prior knowledge, experiences, and affects that the learner brings to or applies to the learning experience. White's theory capitalizes on the adult learners' capabilities for self-direction, since it is the learners that construct the learning environment and that construe the learning context (White, 2003). Self-direction, often coupled with the ideas of autonomy, self-regulation and self-regulated learning (SRL), as well as intrinsic or self-motivation are some of the key variables that the proposed research is expected to illuminate about the learners in the informal online language learning context in the process

of answering the research question how learners structure their learning and find the materials for learning a LCTL. High degrees of self-directedness and self-motivation have been reported for language learners, adult language learners, self-instructed language learners, distance learners, and online learners (self-directedness: Dickinson, 1987 for self-instructed language learners; Dooley, Lindner and Dooley, 2005 for adult distance learners; Schleppegrell, 1987 for adult language learners; Ulitsky, 2000 for adult language learners with multimedia; White, 2003 for distance language learners; self-motivation: Nseendi, 1984 in informal language learning settings; Styer, 2007 for online adult learners; Ushida, 2005 for online language learners). Those results are expected to be replicated with the participants in the proposed study.

The context, according to the learner-context interface theory, comprises not only the features of the course, but also other sources of learning the target language, such as communication with other learners, native speakers, and/or products and artifacts of the culture(s) using the target language (White, 2003). Context also comprises the environments in which learning takes place, also called learning spaces (Selinger, 2000; as cited in White, 2003, p. 215): the learning management systems, virtual classrooms, and virtual communities (White, 2003). Although broadly conceptualized, this view of context is not as broad as the one put forth by Bronfenbrenner's ecological systems theory and applied to language learning by van Lier (2003). In comparison with the wider context lens expounded in the field of adult learning, the learner-context interface does not take into consideration institutional and societal norms and pressures, i.e. the macrosystem in Bronfenbrenner's theory. This broader

ecological perspective on language learning and teaching has been detailed by Tudor (2001), who not only describes the interaction between the learner and teacher within the context of a classroom, but also situates this interaction in a point in time and places it within the greater ecosystem of societal and cultural norms. These norms inevitably influence the complex personas and context involved in the language learning and teaching process, and have been referred to as "cultures of learning" (Cortazzi and Jin, 1996; as cited in Tudor, 2001). Tudor's perspective is reminiscent of Bronfenbrenner's ecological systems theory view of context, although Tudor himself does not quote Bronfenbrenner.

The interface addresses how distance language learners shape the learning process. Developing the interface is a mental activity that learners engage in (White, 2003, p. 93), which places this theory in the mentalist camp of language learning/acquisition. But the interface is also developed in interaction with the context and as the learner himself/herself changes. Therefore, similar to sociocultural theory (SCT) and supporting an ecological linguistic worldview, learning occurs through interaction as the learner uses the interface to manipulate the context and receives responses back from the context. White (2003) describes three features of the interface:

- learners construct the interface by being "key agents" (Esch and Zahner, 2000; as cited in White, 2003, p. 94) that decide how and when to operate within requirements provided by the context;
- the interface is dynamic and constantly changing under influences from the social context;

- the interface exhibits mutually interactive effects, since it is seen as an ecological system consisting of the learner and context, mutually responding to each other through interaction.

One way to graphically represent the relationships between the interface, learner, and context (broadly defined and referencing ecological systems theory) is presented in Figure 3.

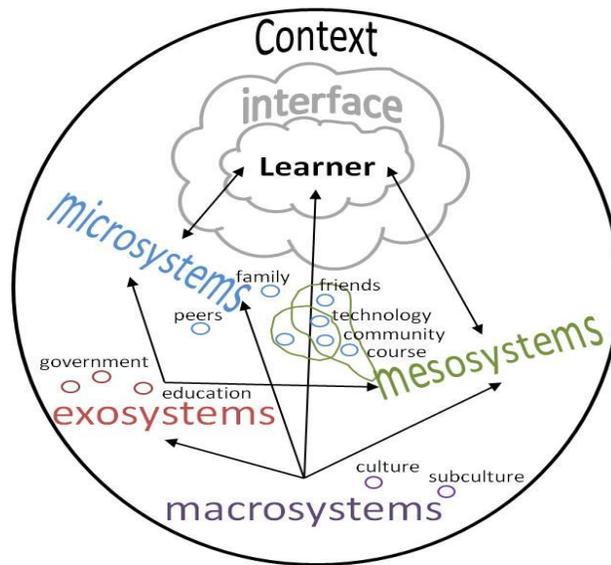


Figure 3. Ecological Systems Theory and the Learner-Context Interface.

The blue circles represent some possible microsystems, whereas their groupings using green represent possible mesosystems; the dark red circles represent possible exosystems; and the purple circles represent possible macrosystems. The arrows represent directions of influence or interaction among the subsystems: note that sometimes the influence is

bidirectional, i.e. the learner both makes an impact and is impacted by the system, and sometimes the impact is unidirectional, i.e. the system influences the learner. The pragmatic and mental perspectives of the context, proposed by Tudor (2001), are not distinguished in this illustration, although the pragmatic influences would be evident in the microsystems of course and technology, whereas the mental perspectives would be evident in the learners' interactions with those and other micro- and mesosystems, such as teacher, friends, family, peers, and others. The interface is portrayed as a gray cloud-like permeable membrane because it's dynamic and constantly changing under the influence of the learner and the context.

Many of the underlying processes described as the interface by White (2003) have also been posited by other theorists describing the language learning context from an ecological perspective (for example, Lafford, 2009; Tudor, 2001). The concept of the interface can be likened to the process lens discussed by adult learning theorists and has been previously described as part of the context (of activity) in language learning (Kalaja, Alanen, Palvianinen and Dufva, 2011). The concept of the interface could also aid with conceptualizing the impact of proximal processes, described by Bronfenbrenner (1995) as processes that instigate learning. Proximal processes define the zone of proximal development (ZPD), first proposed by learning theorist Lev Vygotsky, and include interactions with different interlocutors, such as experts, equal peers, or less capable peers, as well as inner resources, such as knowledge, experience and memory (van Lier, 2004).

Although the learner-context interface theory arose from White's (1999) own research with distance language learners, there has been no other research framed within the learner-context interface theory thusfar and White (2005) herself challenged researchers to develop and critically evaluate her learner-context interface theory. While the theory was situated in the distance education context, the proposed study applies it to the context outside of the formal educational establishment because there is currently no other theory that is specific to language learning outside of the face-to-face classroom. Therefore, the research questions aim to discover whether this theory and the concept of the interface in particular would be useful in the study of informal language learning settings as well. Previous studies relevant to these research questions are discussed next. The profile of the online language learner that emerges from a survey of the existent literature is also developed.

## **2.2. Research Questions**

### **2.2.1. The Impact of an Ecologically Conceptualized Context on Language Learning with Instructional Multimedia and CMC Online**

The first research question is focused on the learner and context dimensions of the learner-context interface. The learner dimension components that are specifically targeted in the question are motivation and perseverance with studying the language and how that study is supported or impeded in an ecologically-conceptualized context, which encompasses:

- the learner's immediate social environment (microsystem),
- relationships between microsystems i.e. the broader social community (mesosystem),
- the availability of resources for studying the language and the curriculum of those

- resources (exosystem), and
- the cultural views on studying foreign languages (macrosystem), which also impact the exosystem and the learner's motivation and sense of identity.

Taking a closer look at the learner component, one characteristic often recognized as typical in distance learning programs for the less commonly taught languages, in particular, is that the learners are highly motivated, mature, and sophisticated (Doughty & Long, 2003). Echoing the sentiment, Dickinson (1987) discusses the high likelihood in a self-instructional mode of language learning that the learners will be aware of their needs and goals and be intrinsically motivated. In addressing the characteristics of self-instructed language learners of less commonly taught languages, Henderson (1974) also posits their high level of self-motivation. Motivation in general, as well as coupled with the topic of anxiety (Coryell & Clark, 2009; Dickinson, 1987; Foster, 1997; Horwitz, 1995) and emotion in learning, is a large research area in language acquisition. In addition to anxiety, Schumann (1975, as cited in Dickinson, 1987) describes language shock, culture shock, and language stress, all of which may negatively impact motivation and other affective factors of language learning. Motivation has been hailed as critical to effective learning and an often convincing predictor of language success or failure by other researchers as well (Hurd, 2006; Nseendi, 1984). Ushida (2005) presents an overview of two camps of research in motivation for language learning, especially involving technology:

1. Gardner's socioeducational model: biological and experiential factors of learners interact with individual-difference (cognitive and affective) variables in formal and informal

language acquisition contexts and yield linguistic and nonlinguistic outcomes (i.e., students' reactions to the learning experience);

2. Reformists, such as Crookes and Schmidt, and Dörnyei, according to whom motivation is much more multifaceted than the socioeducational, more systems-oriented, model suggests, and who distinguish between language level (orientations and motives related to various aspects of the second language, i.e. culture, usefulness of language knowledge), learner level (affects and cognitions underlying the motivational processes, i.e. language use anxiety, perceived confidence) and learning situation level (intrinsic and extrinsic motives, plus motivational conditions concerning course-specific components, teacher-specific components, and group-specific components).

Both frameworks are potentially helpful for understanding the motivation of language learners learning with technology in hybrid courses (Ushida, 2005). According to Nseendi (1984), language learning motivation in adults is impacted not just by the context of social life, psychological and other internal factors, mentioned by Horwitz (1995), but also by the structure of the course, feedback, incentives and other factors:

In informal settings, people freely use their motivation and perseverance to learn foreign languages for communication. For a formal language learning context to result in a similar achievement as in the informal context, curricula, syllabuses and coursebooks ought to account for the learner's freedom, motivation, and perseverance. (Nseendi, 1984, p. 110)

Therefore, the topic of motivation is not only a characteristic of the learner, but is also

impacted by the context, a finding also confirmed in the broader field of adult learning online (Styer, 2007). In examining the impact of the educational context on learner motivation, especially in informal learning contexts, it is helpful to look at the learner's relationships in the micro-, meso-, exo-, and macrosystems.

Taking a microsystemic view, Dickinson (1987) points out the continuum of integrative (relating to a community) vs. instrumental (job or education-related purposes) motivation for learning a language. The intensity of these motivations may change over time with learners' experiences, such as a visit to the country where the target language is spoken or becoming socially interested in a native speaker of that language. A study of French high school students' motivations for choosing a foreign language for study outside of school revealed besides the instrumental (utilitarian or pragmatic) category, two subcategories of the integrative category: on the one hand identity and family history, and on the other emotional ties, i.e. the love of the culture or the people close to the language/culture (Bailly, 2011). These motivational factors were corroborated by Hurd's (2006) study of foreign language learners online at the Open University in the U.K. and by a pilot study of users of the Macedonian Language E-Learning Center materials (Belamaric Wilsey, 2013).

Subscribing to the notion that language is a social construct means that language learning must also be viewed in terms of social practice (Kurata, 2011), i.e. interactions within the micro and meso-systems, especially when that language learning is taking place outside of the formal classroom (Palfreyman, 2011). The idea of language learning as participation or enculturation into a community of practice is not meant to replace the idea of

language learning as acquisition or accumulation of rules and facts in the brain (Sfard, 1998), but to reveal an additional layer of complexity to the learning process (Pavlenko & Lantolf, 2000). One area of research in informal language learning has capitalized on the impact of social networks on language learning (Kurata, 2011; Palfreyman, 2006, 2011; Smith, 2002; Wiklund, 2002). Looking at academic literacy socialization of foreign exchange students, Zappa Hollman (2007) proposes the term "individual network of practice" (INoP) to describe an individual's social ties that are relevant to a particular phenomenon. This term is useful to socially contextualize an individual's support for and process of language learning as well. One part of the INoP, or microsystem, to examine for language learning opportunities and impact on motivation is the family. The influence of the family as a learning community was noted by Palfreyman (2006, 2011). In this microsystem, Palfreyman (2006) found that the influences can be both encouraging and impeding both for target languages study (in this case, English) and for maintenance of the native language, depending on the target language proficiency of family members.

Looking at the language acquisition of expatriates in a country, the language of which the expatriates are trying to acquire, Smith (2002) found that the impact of both the density and heterogeneity of the learners' social networks need to be assessed, as both can either hinder or promote language acquisition. In his own study, he found that in an expatriate setting, language is best acquired through loose social networks with many native speakers; however, the language acquired thusly may only be appropriate for the realm of public interactions and not for dealing with private, relationally-deep topics (Smith, 2002).

Similarly, in a study of bilingual adolescents, Wiklund (2002, as cited in Kurata, 2011) found that language acquisition was aided by social networks consisting of many native speakers with whom the learners interacted frequently. Kurata's (2011) research of how foreign language learners construct opportunities for informal language learning pointed out that these opportunities, which are often taken for granted in certain contexts (such as in Smith, 2002 and Wiklund, 2002) are difficult to construct in others, such as for example when the learners' native language is English and they are trying to acquire Japanese. Similarly, van Lier (2004) concludes:

Learners are not always able to choose freely when and with whom they speak in the target language setting. Doing so requires access, investment, participation, and also the right to speak, which may have to be *claimed* (p. 121).

Kurata (2011) reports that even though the learners in her study wanted to interact with the native speakers in the target language in natural settings, the opportunities to do so were few (p. 74). For example, the language tutors that some of the study participants had hired ended up using the learner's native language (English) for efficiency of explanation; and even when the learner switched to the target language and was having difficulty expressing himself, the tutor undermined the learner's eagerness by switching to English (Kurata, 2011, p. 123). Some of these effects were related to the norms and social roles in the communities where the language learners were situated (Kurata, 2011), thereby illustrating macrosystemic influences, such as beliefs about English being the lingua franca in

multilingual situations and tutor-learner relationships being based on efficiency of content presentation. Van Lier (2004) provides the example of an immigrant woman in New York who failed to learn English, not out of laziness but partially due to beliefs and fears about her competence for language learning that were likely manufactured by society (p. 121).

Lastly, the availability and acceptance of technology in the various microsystems (at home, in the community, at work, etc.) is also part of the learners' mesosystems. Evidence of such an interaction of microsystems is found in online language learners' co-existence in two different spaces: the virtual learning environment and their physical environment. They may "experience a meeting of the minds [in the virtual learning space], but, at the same time, they are always tethered to their physical reality" (Cunningham, 2011, p. 35). When the learners return to their physical reality after the online language learning experience, they may have changed in some way (Cunningham, 2011); similarly, when they return to the online learning environment, they may have changed as a function of experiences in their physical reality. This process illustrates the dynamic nature of these two settings, which change based on the actions of the participants (Leather & van Dam, 2003). Furthermore, in the context of a conversation, certain statements superimpose roles or new contexts while preserving the former context (Leather & van Dam, 2003), whether the conversation takes place in the physical or virtual space. Through participation in social communicative activities, language learners not only exchange information with speakers of the target language but also dynamically organize and reorganize their sense of self and how they relate to the social world (van Lier, 2004).

The use of technology in learning and teaching can also be viewed through an exosystemic view. For example, Warschauer (1998) reports an account where the students in an ESL composition classroom were socialized into using the computer for busywork, rather than meaningful activities of self-expression, based on the rules and norms of the class, teacher, and school. In fact, even when use of technology has been imposed by educational institutions, studies have shown that teachers' beliefs about language learning and perceptions of the technology itself impact the ways that learners end up using that technology (Reinhardt and Nelson, 2004; Warschauer, 2002). In discussing hybrid (face-to-face/online) language learning courses at Carnegie Mellon University, Ushida (2005) reports that because the teachers were the decision makers regarding use and implementation of course materials and because they instructed the learners how to interact with the materials, they played "the most important role in shaping the culture of the [language-on-line] class" (Ushida, 2005, p. 68). The culture of the class consequently impacted students' attitudes, motivations and satisfaction with the course (Ushida, 2005).

Looking at other exosystemic factors in language learning, Doughty and Long (2003) state that one of the characteristics of distance learning programs for the less commonly taught languages is the typical absence of exposure to the target language outside the courses themselves. However, this proposition would not be true for heritage speakers, who normally live in communities of immigrants speaking the target language (Johnson & Hall, 2007). Nonetheless, the statement speaks to the intended audience for distance education language learning programs (and therefore curricular assumptions) as well as the distance education

establishment's perceived lack of available resources for using the language in social settings outside of the courses. This has an impact in the types of courses offered in this setting: "traditional programs, geared only to domestic language learners, have had the fairly narrow, instrumental goal of developing in learners basic language skills, using the educated native speaker of the target language as the standard" (Johnson & Hall, 2007, p. 2). This goal can disadvantage heritage speakers, who have exposure to regional variants and dialects as well as varied levels of knowledge of the target culture, and brings up issues of individual and cultural identity. In addition, it brings into question cultural norms about identity, cultural acceptance of variance in languages vis-a-vis a 'standard' or 'literary' form as norm, and of the ideal that a language learner should strive for: native-speaking ability or a multilingual, multicultural skillset (Blyth, 2009; Johnson and Hall, 2007; Lemke, 2002; Thorne, Black & Sykes, 2009). Indeed, even the notion of a "native speaker" and how one is defined (by birth or participation/acceptance in a community) can be challenged as the native/non-native dichotomy can also be viewed by society as a continuum (Pavlenko & Lantolf, 2000). These issues and relationships relate to components of the macrosystem.

Another component of the macrosystem that is evident in informal language study is cultural attitudes and perceptions of language learners or non-native speakers. Kurata (2011) describes how Japanese native speakers' low expectations of Japanese learners' use of appropriate polite expressions impacted one language learner's acquisition of and disregard of those constructions (p. 162). In contrast, a societal norm that foreigners or non-native speakers do not need to be accommodated in an exchange between native speakers of

Japanese increased a learner's available language learning opportunities (Kurata, 2011, p. 162).

### **2.2.2. Self-Directedness and Self-Regulation for Locating and Using Materials for Language Study**

The second research question focuses on the interface in the learner-context interface theory, specifically on how learners seek out resources and construct their learning environment, but is also related to self-regulated learning (SRL), autonomy, agency, and self-directedness of learners. There have been many studies that have examined this question in various settings.

One study of adult learners in a Web-based non-language course was concerned with how the learners structured their learning environment and organized their schedules to be able to fit learning situations into the totality of their lives (McCann, 2004). Taking Bronfenbrenner's ecological approach, McCann (2004) concluded that adult learners in Web-based distance education courses structure their learning environment based on prior knowledge and experience (which had a positive effect on the number of resources the learners found and had at their disposal as well as on their comfort with the online medium for learning) and amount of self-directedness (which had a positive effect on seeking out and/or creating a learning community). Furthermore, the reasons/motivation for engaging in learning and the learners' social roles also impacted the decisions the learners made about engaging in and continuing their learning.

In one U.S. university course where experienced adult language learners were

learning a relatively new language using multimedia, the learners reported employing several SRL strategies, such as actively controlling the learning situation, evaluating metacognitive learning strategies, and developing regulatory and predictive techniques (Ulitsky, 2000). However, the results showed that a crucial element of the language learning process was contact with native speakers, which occurred outside of the multimedia environment (Ulitsky, 2000). In a case study profiling a U.S. high school senior, Lam and Kramersch (2003) confirmed the finding regarding the benefits of community participation on language learning, specifically on improving foreign language writing by voluntarily joining and participating in an online community and thereby engaging in informal learning. Similarly, a study specific to English language learners surveyed how these learners found and used available material and social resources outside of the formal university setting to enhance their learning in that setting (Palfreyman, 2006). The study took place in the United Arab Emirates, an affluent society where English is perceived as a high-status language, used in both public and private domains, and many resources are readily available for formal and informal study. Palfreyman (2006) organized his findings based on the types of resources the learners found, used, and preferred outside of the formal learning setting. In terms of material resources, such as books, dictionaries, TV programs, etc., learners preferred using entertaining and/or electronic resources, whereas relevant factors for choosing social resources (members of the learners' microsystems) were perceived proficiency in the target language and accessibility to the learner (i.e. frequency of contact with the learner). Perceived proficiency in the target language (English) was shown to be more important in the

learners' choice to turn to a particular social resource for assistance (Palfreyman, 2006). In contrast to Palfreyman's study of learners of English, Kalaja et al. (2011) pointed out that the use of social resources for language learning may be different for learners of English and those of less commonly taught languages, such as Swedish. Kalaja et al. (2011) compared informal language learning of English and Swedish in Finland, discovering that learners of Swedish did not take advantage of all of the resources they had available, whereas learners of English exhibited agency in expanding their contexts for learning. While the learners of English used a variety of material and social resources outside of the classroom (TV, movies, radio, Internet, books, magazines, other people), the learners of Swedish only occasionally used material resources and rarely used social resources (Kalaja et al., 2011). The lack of use of social resources was partially because there weren't many people speaking Swedish in their communities, which also contributed to their perception that Swedish was not useful in their daily lives (Kalaja et al., 2011). In exhibiting this attitude, however, learners of Swedish missed opportunities to use the language even with native speakers of Swedish, preferring instead to rely on the lingua franca, English (Kalaja et al., 2011). Reliance on English as a lingua franca among speakers of various Arabic dialects was also reported as a preference by Palfreyman (2011) in the United Arab Emirates. These studies demonstrate that the opportunities and motivations for language learning and use of English vis-a-vis LCTLs are indeed different.

Turning to studies of use of CALL materials for language learning, a U.K.-based study of three adult learners of two different foreign languages at the low-beginner level with

solely commercially-available stand-alone CALL materials reported that the learners felt they needed additional materials as supplements or complements to their use of the software (Bidlake, 2009). Similarly, Nielson (2011) found that adult foreign language self-instruction using solely commercially available stand-alone CALL materials was not successful. The learners in Nielson's study, who were employees studying a language as part of their job, reported among other things needing more guidance with the materials from an instructor, as well as more explicit grammatical information about the target languages (including specifically for foreign alphabets). For example, nearly half of the participants who took the first scheduled assessment in Arabic "reported seeking outside resources to help them with the program" (Nielson, 2011, p. 123). Help-seeking from the social support environment was also reported in a small phenomenological study of five undergraduate students in a U.S. university's Web-based general science course (Hsu, Ching, Mathews, & Carr-Chelman, 2009) and alongside other strategies for dealing with ambiguity in distance self-instructional language courses in Japanese and Spanish (White, 1999). Hsu et al. (2009) found that in addition to seeking help from the instructor, the students engaged in other SRL behaviors such as time-management and planning, creating a routine, monitoring learning performance, and others. Similarly to Ulitsky's (2000) findings with experienced adult language learners, the learners in this study changed their strategies, cognitions, affects, and behaviors during learning as a result of their monitoring and reaction of reciprocal interactions among behaviors, physical and social environmental variables, and personal factors (Hsu et al., 2009). White (1999) found that beginning language learners of Japanese and Spanish were

caught by surprise by the inherent ambiguity of self-instructional language learning and dealt with it through strategies such as affective control (self-talk, time-lapse) and engagement (searching for materials or other resources) in addition to seeking outside help from tutors, experts, fellow students, or local contacts.

These findings seem to be in line with earlier research by Jones (1998) with 70 students and members of the public who were using a university language lab. After a series of factor and discriminant analyses of interview data, Jones concluded that self-instruction can be beneficial only at intermediate or higher levels of language learning, i.e. after the lexico-grammatical core has been learned. This finding was also confirmed with students in an associate's degree program in Hong Kong learning English online through a distance education program where they interacted with a teacher (Ng, Yeung, & Hon, 2006).

Many of the reviewed studies focused on the online and distance education setting. In informal and self-instructed learning, the onus is even more on the learner to be self-directed, find resources and decide how to use them in the absence of a syllabus or an externally-imposed structure, evaluation, or extrinsic motivation support. The learners need to employ metacognitive strategies, evaluate their needs and find ways to meet them in the absence of external guidance, perhaps even by seeking out such guidance. In the absence of externally imposed deadlines, the learners also have to exhibit strong time management skills and self-motivation to stay the course.

### **2.2.3. Challenges and Opportunities for Studying a Less Commonly Taught Language Online**

The third research question is also concerned with the interface in the learner-context interface theory, but focuses on the perceived challenges and opportunities for constructing an efficient interface that fits in with the totality of the learners' lives. Some of the challenges reported in the literature for studying LCTLs were already mentioned in the introductory chapter of this study: demographics, financial constraints, lack of pedagogical materials, shortages of trained teachers, no local classroom language learning offerings (Bhatia & Ritchie, 2009; Blake, 2007, 2008). Furthermore, many of the LCTLs and ANTLs, including Macedonian, are written in different scripts, posing a unique challenge for both teachers and students. For example, an English as a Second or Foreign Language teacher would never hear her students ask whether they can learn the English language without learning the Latin alphabet. As a teacher of languages written in the Cyrillic script, the researcher has had many requests from students to just teach the language and not the alphabet. Reluctance on the part of the instructor to do so may be perceived by learners as an additional challenge to find the right learning resources for meeting their specific needs.

When in the absence of formal learning opportunities, learners turn to Internet resources for language learning, they may have difficulty evaluating the quality of these resources. For example, in personal communication with the researcher, some learners of Macedonian have used vocabulary that they learned through online resources, only to discover that it was archaic or limited to a particular dialect. When learners turn to self-

instruction, which may be a common route for LCTLs simply because of the scarcity of instructors, learners may still find a lack of available materials or of effective materials. In a study of learners of Russian, Bown (2009) found that the learners compensated for the individualized instruction of the language by seeking out and even creating opportunities for input and interaction. However, as Kurata (2011) found with learners of Japanese, even when learners seek out to create these types of opportunities, such as with target-language-speaking friends or tutors, they experience difficulty getting the target language input they are looking for. Additionally, even if learners are in the country where the target language is spoken, if their social networks consist mostly of speakers of their native language, they may not learn the target language or get proficient at it (Menezes, 2011). Additional challenges may be encountered by learners seeking advanced materials for study of LCTLs, because there are rarely those opportunities, even in the online medium.

Even if they are able to locate resources for language learning in the distance and online settings, some students may not feel comfortable studying a language in those environments and may experience some challenges related to the medium of study. As was already discussed, self-instructed learners need certain skills, such as self-regulation and autonomy, and metaknowledge, such as strategies for language learning. If these elements are lacking, the learners would be additionally disadvantaged in the online and distance education mediums. In an evaluation of the use of technology for online language learning in ESL cyberschools, Smith and Salam (2000) found that students had trouble maintaining motivation in the absence of external deadlines. On the other hand, Blake (2007) found that

students in virtual courses outperformed other groups of students, which he attributed to the characteristics of online learners to be more mature and more invested in their learning because they are paying for it out of pocket. However, even Blake acknowledges “more data are needed to fully evaluate this question, especially from students of LCTLs” (2007, p. 86).

Online learning also imposes technological challenges. Learners who are not comfortable with the technologies used in online learning may be frustrated and discouraged by any technological problems or malfunctions. In addition, depending on the students’ level of computer literacy, they may perceive the technology used in a course as outdated or too advanced (Smith & Salam, 2000). A previous study with users of the Macedonian Language E-Learning Center materials showed that these users were comfortable with technology and, although relatively inexperienced with online language learning, were also comfortable with the online medium for studying a language (Belamaric Wilsey, 2013).

When the online language study involves synchronous communication, especially with international audiences, additional challenges, including scheduling and technological availability, arise from those learners being physically located in many different time zones and countries with different levels and reliability of access to the Internet. Lai, Zhao, and Li (2008) note scheduling issues and technological problems with synchronous group virtual meetings, even with learners and instructors located in proximity. Furthermore, trans-cultural computer-mediated communication, whether synchronous or asynchronous, has been well researched and many studies have reported that the learners’ experiences and perceptions are influenced in part by cultural norms and cultures-of-use (Basharina, 2009; Belz, 2003;

Thorne 2003).

Studies have reported learners' mixed feelings about using videoconferencing (O'Dowd 2006a, 2006b, as cited in Lamy & Hampel, 2007). Cziko and Park (2003) found that the presence of video was less critical to language learning than the audio, but that it provided an added level of interest. Similarly, Cunningham (2011) reports that:

Students who are not obliged to use a Webcam will generally prefer not to.

Students have expressed appreciation of the option to be present in voice but not video (p.31).

Therefore, while some students may perceive videoconferencing as an opportunity, others may perceive it as a challenge, whether because of personal preferences, such as shyness on camera, or lifestyle preferences, such as studying late at night in one's pajamas (Cunningham, 2011).

"Distance learners often express a concern that their ability to develop an effective learning environment and to engage with the TL is compromised by the complex context in which they study as part-time learners" (White, 2003, p. 113). But this can also be an advantage when what they are studying is practical for their work, home life, or other roles and when they can practice and apply what they've learned in the other domains of their life. This relevance, if present, can increase motivation for language learning (Dickinson, 1987). In self-instruction and informal tutored instruction, an additional challenge arises from the lack of externally imposed deadlines, which when coupled with the every-day demands of a complex life can impact or even impede the regularity of language learning opportunities and

therefore prolong or impede gains in language learning, which in turn impacts learners' motivation to persist with the learning process. Some learners, however, perceive the lack of pressure in a self-instructed setting as a benefit that increases (intrinsic) enjoyment of the process of learning (Murray, 2011).

#### **2.2.4. Impact of the Learner's Experiences with the Context and Interface on Instructional Design**

The final research question is concerned with conclusions that can be drawn for the instructional design of materials and resources for informal language study of LCTLs, such as Macedonian. The design of materials impacts the context component of the learner-context interface because it limits what contextual elements the learners will be interacting with. In comparing the experiences of learners using only self-instructional materials and those using tutoring, the study implicitly raises questions about the design of such materials and about the inclusion of more social computing activities in online language learning.

Studies about the preferences for collaborative activities of adult learners in distance education outside of language learning have reported mixed results. For example, Styer (2007) found that adult learners are better motivated by courses with no or minimal synchronous activities, optional learner-to-learner communications, and nonmandatory collaborative activities (p. 115). In a study of Japanese adults learning English at a self-access center in Japan, a number of learners echoed Styer's findings in reporting it was important for them to be able to work at their own pace "without the need to worry about what other people were doing" (Murray, 2011, p. 137). On the other hand, Campbell Gibson

(1998) stated that students in individualized self-paced distance education programs prefer to share names and phone numbers and willingly chat and even meet with classmates to offer support (p. 122). In the distance education setting, collaborative learning experiences and learning communities have advantages over text-based online learning because they address not only the rational learning capabilities of adults that text-based online learning addresses, but also the emotional, relational, physical, metaphoric, and spiritual learning capabilities (Boud & Griffin, 1987, as cited in Palloff & Pratt, 2003). Language learning studies have found that CMC, including email correspondence, benefits student-initiated discussion, that students' sense of achievement and enhancement of learning opportunities positively impacts their motivation, and that students perceive linguistic, affective and interpersonal benefits (Beauvois, 1994; Beauvois & Eledge, 1996; Chun, 1994; ; Jogan, Heredia, & Aguilera, 2001; Kern, 1995; Warschauer, 1996a, 1996; all as cited in Ushida, 2005). Even Murray's (2011) study of learners of English pointed to the appreciation of the community of practice that existed in the self-access center and the assistance the community provided to its members through language learning support and friendships. In their book focused on teaching foreign languages to adults, McKay and Tom (1999) place an emphasis on creating a learning community because students who feel like a part of a community want to use their language for authentic purposes (p. 24).

Based on this research, the key in resolving the seeming contradiction between maintaining learner autonomy and a community of practice seems to be the non-mandatory character of interactions with other learners in the community. However, in online language

learning settings, Ros i Sole and Hopkins (2007) found that creating online communities is challenging if learning activities involving interaction with other people are optional.

In evaluating the state of the field, White (2006) goes so far as to say that the focus in language teaching with technology is shifting from the language learner as an independent individual to a focus on collaborative communities and facilitation of interactions and exchanges between peers, learners, teachers and native speakers. Yet, in self-instruction those learning communities are by definition non-existent, and learners who want that social interaction have to look for it outside of the materials used for study, seeking out separate resources to accommodate that social aspect of language learning. Discovering how important this aspect is for self-instructed language learners, such as the ones in the present study, impacts the design of online instructional materials in terms of what emphasis, if any, needs to be placed on developing resources for virtual community building for language practice. An additional challenge for virtual community building may be the virtuality of the space; Ushida (2005) found that students took longer to build a community in hybrid than in face-to-face classes because of the decreased number of hours the students met synchronously.

Focusing on the types of technology-assisted-activities language learners prefer, Peters, Weinberg, and Sarma (2009) discovered that learners of French in five Canadian universities most liked four activities: listening to music, viewing video files, consulting online dictionaries and grammars, and chatting in the target language, whereas on the opposite end of the continuum was reading texts on the computer (p. 884). Four activities

were consistently perceived as the most useful: consulting online grammars/dictionaries, online grammar exercises, chatting in the target language, vocabulary exercises and online quizzes, whereas at the bottom of that continuum were blogs and Webquests (p. 886). Their analysis revealed a direct relationship between learners' perceptions of activities as liked and useful (p. 888). In a similar study of ninth-grade Swedish learners of English informally through extramural activities, the learners most often engaged in listening to music (an average of six hours per week), playing video games, watching TV and movies, surfing the Internet, reading books and newspapers/magazines (Sundqvist, 2011). Among these, relatively more important for oral proficiency and vocabulary gains were activities that required learners to be active and productive, such as playing video games, surfing the Internet and reading books and newspapers/magazines (Sundqvist, 2011). These findings have implications for instructional design in terms of the type of resources to provide for the biggest impact on oral proficiency and vocabulary.

Research on design principles that encourage self-regulation (SRL) and learner autonomy is prolific, especially in distance education (Hsu et al., 2009; Lewis & Chen, 2010). Some elements from these settings, such as course calendars, grading, and the availability of an instructor, are not applicable to self-instruction and informal learning. However, other design considerations may be applicable. Hsu et al. (2009) identified that learners need to be provided with encouragement and strategies for note-taking (when learners did not realize they needed to take notes, their higher-level (Bloom's taxonomy) engagement with the material was impeded) and that the use of multimedia maintains

motivation to persist learning. Furthermore, Lewis and Chen (2010) maintained that SRL could be encouraged in e-learning settings through standardization of the look and feel of course modules, which should be independent of each other; using common terminology, current methodologies, and current tools for course delivery, as well as making incremental but continuous updates and improvements; and understanding the cultural and socioeconomic background of learners.

Specific to encouraging self-regulation in distance language learning, Andrade and Bunker (2009) propose a design model based on a reflective loop that includes:

- the learners' interaction and performance with the structure (content) and dialogue (tutoring, conferencing, feedback, communication) of a course, and
- the impact of these activities on six dimensions of self-regulated learning (SRL): motive (why), methods (how), time (when and how long), physical (where) and social environment (with whom),
- in order to increase the learners' level of SRL, autonomy, persistence with the course, and language proficiency (p. 54).

According to this model, as the learners' interact with the structure and dialogue in a course and develop SRL strategies, their levels of SRL, autonomy and language proficiency increase (Andrade & Bunker, 2009).

One of the facets of self-regulation relates to learners' experimentation with materials and learning strategies to find the best fit for them as an individual. Reporting about the learning process of an adult studying English in a Japanese self-access center, Murray (2011)

concludes that "educators have to put tools and structures in place to support learners without depriving them of experiential learning opportunities which could serve to enhance their metacognitive development" (p. 139). Which tools and structures can best be used in online self-instruction settings is therefore an important topic of further research.

### **3. METHODS**

#### **3.0. Introduction**

The research approach that best fits the questions posed in the study and the ecological systems theory perspective is qualitative. A qualitative methodology is appropriate because:

- Ecological linguistic research is emic (incorporates the views of the participants) and focuses on what the experiences mean to the learners; the focus is on the process rather than the product (Lafford, 2009);
- Language learning is a complex social and cultural phenomenon that cannot be fully described through quantitative studies (Warshauer, 2000, as cited in Murday et al., 2008);
- Qualitative methods help produce a deep-level analysis of how instructional technology affects language learning and teaching processes (Murday et al., 2008);
- Technology is a moving target and therefore is challenging to depict with traditional quantitative methodologies of inputs, outputs, and isolation of dependent and independent variables; instead, it should be researched through contextualized research, such as the ecological perspective where the focus is on relationships and processes rather than products and outcomes (van Lier, 2003);
- Ecological research is conceptualized as one of a range of qualitative research strategies (Bogdan & Biklen, 2007, p. 3).

Among methodologies reflecting the qualitative approach, most commonly encountered in ecological research are ethnographies (Lafford, 2009; Leather & van Dam, 2003; Warschauer 1999, 2000, as cited in Murday et al., 2008; Whiteside, 2006 as cited in Kramsch, 2008; Yi 2007, 2008, as cited in Thorne et al., 2009;), and to a lesser extent phenomenological studies (Brouwer & Wagner, 2004; Kramsch, in press, as cited in Leather & van Dam, 2003) and case studies (Leonard, 2011; McCann, 2004). For the present study, a phenomenological case study approach was most appropriate. The research is framed as a case study, because the sample researched and the population from which it was drawn was limited both by language (Macedonian) and site (the Macedonian Language E-Learning Center). The reasons for these delimitations were explained in the Introduction.

Phenomenology was chosen as the methodology because it focuses on understanding meanings and actions (Miles & Huberman, 1994, p. 8), especially what events and interactions mean to ordinary people (Bogdan & Biklen, 2007, p. 25; Moustakas, 1994, p. 13). This approach is in direct correlation with the research questions, which explicitly focus on learners' perceptions of themselves, experiences in the learning context, and their interface with the learning context. In situated approaches to researching language learning, such as the ecological approach, living and learning are integrated, cognition is ultimately inseparable from its social context, i.e. from life (Brouwer & Wagner, 2004; Ingeborg, 2007; Leather and van Dam, 2003). Phenomenology, which is concerned with understanding and describing the essence of an informant's point of view, lifeworld (*Lebenswelt*) and lived experiences (Bogdan & Biklen, 2006; Miles & Huberman, 1994), is therefore an ideal fit for

answering the questions that are at the center of this study. Furthermore, both phenomenology as a qualitative research methodology and ecological linguistic approaches are at their core rooted in the non-positivist beliefs that meaning is relative and dialogic.

There are several classifications and types of phenomenology. In one classification, Creswell distinguishes between two types: hermeneutic, represented by the work of van Manen, and empirical, transcendental, or psychological, represented by the work of Moustakas, Giorgi, and van Kaam (2007, pp. 59-60). Another similar typology consists of interpretive or hermeneutical (van Manen) and descriptive (Moustakas) phenomenology (Connely, 2010; Dowling, 2007). The foci of differentiation in these two classifications are whether the researcher is simply jotting down a description of the phenomenon or actually trying to interpret its meaning or essence and whether phenomena are experienced before our understanding of them is imposed or if our understanding of them contributes to how we experience them. The answers to these questions are not simple. On the basis of these questions and how the answers contribute to research design, Moustakas distinguishes between hermeneutical, empirical, heuristic and transcendental phenomenology (Moustakas, 1994).

Ultimately, the type of phenomenology the researcher chooses is based on the researcher's own epistemology. This researcher's epistemology is discussed in the subjectivity statement later in this chapter, but instrumental in choosing the research design were these beliefs:

1. Interpretation and theorizing cannot be separated from textual practice of writing: “If we simply try to forget or ignore what we already “know”, we might find that the presuppositions persistently creep back into our reflections” (van Manen, 1990, as cited in Dowling, 2007, p. 138).
2. Participants in the research should be represented as whole persons and remain visible in the examination of data (Moustakas, 1994, p. 19), and the researcher would argue in the interpretation of the data as well, in order to assure validity.
3. The emphasis of phenomenological research methods is on language, both in written and oral form. Interviews are a means to both draw out stories from the participants of the research and to reflect on the researcher's own experiences. In a sense, the exploration of the phenomenon is done jointly by the researcher and participants through dialogue. Dialogue is conceptualized as "a horizontal relationship of naming the world which creates mutual trust" (Freire, 1970/2009, p. 149). Therefore, the interviews play both the role of creating mutual trust between the researcher and participants and for reflecting on the experiences of the phenomenon (van Manen, 1994).

Based on these beliefs, the researcher draws on empirical (Giorgi) and hermeneutic (van Manen) approaches to phenomenology in constructing the present study.

### **3.1. Research Questions**

The research questions include:

1. How does the learners' context (ecologically conceptualized) impact informal language learning with instructional multimedia and CMC (tutoring) online? How are the learners' motivations for language learning impacted by this context?
2. Furthermore, how do learners of Macedonian locate and use technology for language learning that makes it possible for them to fit language learning into the totality of their lives? Are their processes effective?
3. What challenges or opportunities do they see?
4. Finally, what impact do these challenges and opportunities have on instructional design of materials and resources for informal language study of less commonly taught languages such as Macedonian?

According to their purpose, these research questions can be divided into descriptive, exploratory, and explanatory (Marshall & Rossman, 2006). Since there has not been previous research on this population of learners, the second and third questions are exploratory and descriptive, aiming to discover and understand the process of learning Macedonian informally online and how this process fits into the totality of learners' lives. The first and fourth questions are explanatory, examining the impact of context on the discovered process and of the study findings on instructional design of materials for this population of learners.

### **3.2. Site Selection and Sample**

Since the population from which the sample of respondents originated comprised users of the MLEC materials, a thorough description of these materials is necessary in order to provide a robust picture of the site of the study.

### 3.2.1. The Recruitment Site

The Macedonian Language E-Learning Center (<http://macedonianlanguage.org>) is a non-profit organization that teaches the Macedonian language and about Macedonian culture through online asynchronous resources, such as multimedia tutorials, games, exercises, wikis, and through synchronous voice-over-Internet-protocol (VOIP) tutoring via Skype. The center has resources for children, for beginner learners, for advanced learners, for linguists, and for instructors. The materials for advanced learners are not yet available on the Website, whereas the materials for linguists are limited to hyperlinks. The materials for instructors are only available as PDF-format exercises that instructors can download for use in their classes.

The most frequently visited resources are those for beginning learners, outlined in table 1. The primary materials for these learners are multimedia tutorials, authored with Captivate and delivered via Flash. The tutorials are organized into lessons, and several lessons comprise a unit. Objectives focusing on conversation, vocabulary, and grammar are provided at the unit-level. In terms of syllabus organization, the overarching principle is a functional-notional one, with units focusing on functions such as introductions, descriptions, giving/receiving, etc. However, within each unit, the lessons are organized grammatically; therefore, within the unit "Introductions," the tutorials introduce the present tense of a-verbs, present tense of e-verbs, negation, etc., each building on the communicative function of introducing oneself.

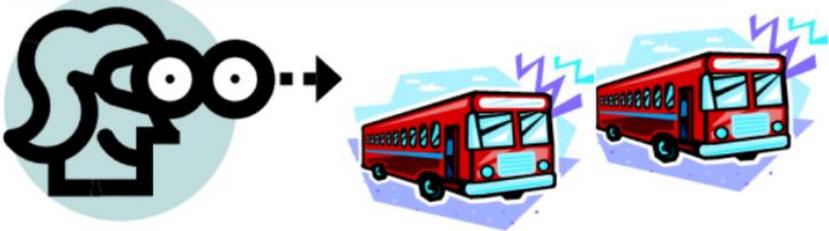
Table 1. MLEC resources for beginning learners.

<b>Instructional focus</b>	<b>Examples of materials</b>
Content presentation and interactive practice	Multimedia tutorials (but without the capability for learners to record/analyze their own speech stream)
Additional interactive vocabulary practice	Crossword puzzles, rebuses, surveys, simulations
Listening practice	Podcasts (but without a RSS feed)

The tutorials consist of audio, animations, and graphics that aim to convey the prescribed objectives often through the contexts of dialogues, delivered only in the target language, Macedonian. Learners are allowed to skip forward or back using the controls at the bottom of the window where the tutorial is presented. Reminiscent of the audio-lingual method (Fox, 1991; O'Maggio Hadley, 2001; Clancy, 2004), learners are asked to repeat after the speaker and are allowed a few seconds to do so before the speaker moves on. Learners do not have an opportunity to record their own voice or compare with the native speaker in the tutorial. The instructional portions of the tutorials are followed by traditional but interactive exercise formats, such as fill in the blank, column matching, and multiple choice. The exercises are predominantly on the morphological (word) level, sometimes contextualized in sentences; for example, fill in the blank with the grammatically correct form of the verb in the context of a given sentence, the meaning of which is scaffolded with a graphic or image. Learners have opportunities to write entire sentences mostly in translation-type exercises, which are scaffolded with visual illustrations, as seen in Figure 4.

## Plural of Masculine Nouns

Describe the picture by translating the sentence "She sees buses."

An illustration showing a woman with black hair and glasses on the left, looking towards two red buses on the right. The buses are stylized with blue and yellow accents. The entire scene is set against a light blue background with purple and blue wavy lines.

Question 10 of 10

Submit

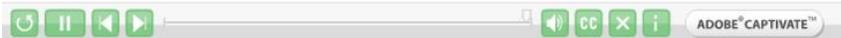
A horizontal bar containing various control icons: a refresh icon, a play/pause icon, a back icon, a forward icon, a volume icon, a CC icon, an X icon, an information icon, and the text "ADOBE CAPTIVATE™".

Figure 4. Translation activity on the MLEC Web site.

Some of the exercises are based on listening, for example they require that learners select the picture that best describes what they hear. However, most of the exercises are reading-based. At the request of the learner, feedback is provided immediately in the form of "correct" if the answer is correct and if it is not, "incorrect" followed by the correct answer. While the answers are scored, the benefits of scoring are intrinsic and only displayed for the duration of the tutorial. The learning management system does not remember the score and learners cannot retrieve their score after they have closed the tutorial window. However, they are allowed to complete the tutorial, including the exercises, multiple times.



Figure 5. Tutorial, grammar and vocabulary on the MLEC Web page.

On the Web page under each tutorial, there is a list of the vocabulary that appears in the tutorial and a brief, textual, grammatical explanation of the grammatical points illustrated by the tutorial (Figure 5). The vocabulary is crucial because the tutorials themselves do not contain translations into English, so learners who wish to find out if their conclusions about the translations of words presented in the tutorial are correct must use the vocabulary provided below the tutorial. Each word is a hyperlink to an audio file of the pronunciation of the word and words are identified by part of speech as well as translated into English. The grammatical explanations are bite-size texts presented in English, with examples in Macedonian with translations.

More user control is provided at the level of choosing the order in which to view tutorials within a unit. Suggestions for which tutorial, exercise, or game to continue to, depending on the learners' goals, are provided underneath the vocabulary and grammar placeholders. However, these suggestions are not individualized but generic, of the type: "for more practice on this topic, click to continue to..." or "to review this grammar point, click to return to...".

Games, such as interactive crossword puzzles and rebuses, are provided for additional lexical practice in writing. A few simulation-like exercises, authored with Hot Potatoes, are also provided. These simulations provide users with a list of choices on each screen and based on those choices, learners can explore different scenarios. Audio files, referred to as podcasts, are also provided to further contextualize the vocabulary and grammar presented in the tutorials. However, these audio files are not rss-based, so learners cannot subscribe to them and therefore they are not podcasts in the true sense of the word. The audio files are accompanied by a textual transcript in the target language only and a vocabulary list formatted in the same manner as the vocabulary lists presented with the tutorials. The hope is that learners will use the vocabulary list in order to translate the dialogue, but they are not provided with the answer to that translation, i.e. the English version of the text.

### **3.2.2. Context of Use**

The resources are aimed as a supplement to other face-to-face coursework or for self-study. Some users of the site have voluntarily reported using the site as a supplement to other materials, both in formal and informal educational settings. When used for self-study, the

resources described above do not provide learners with an opportunity for speaking, oral interaction, or being evaluated on their oral production. Therefore, learners with goals of more than just reading and listening comprehension are provided opportunities for oral practice with a paid tutor via Skype and/or with a community of learners through a free synchronous chat visible to registered users. Learners working with a tutor can choose whether they want to utilize only the audio communication features or if they want to utilize video capabilities as well. Because the service is not free like the rest of the resources available on the Website, the population that can utilize this service may be limited financially. On the other hand, there are users who do not prefer the self-paced approach of the online resources, instead opting to get their instruction entirely through synchronous voice-over-Internet-protocol (VOIP) CMC with a human tutor. Therefore, the two populations of users of materials may be different.

### **3.2.3. Sample Selection**

In a qualitative paradigm such as phenomenology, samples are often small and non-representative of the larger population (Bogdan & Biklen, 2006; Miles & Huberman, 1994). The number of participants is small because they are studied in context and in depth (Miles & Huberman, 1994). According to Creswell (2007), the number of participants in phenomenology can range from one to more than 300, but researchers recommend studying three to ten subjects (Dukes, 1984; Riemen, 1986; both as cited in Creswell, 2007). The sampling is purposeful, rather than random (Creswell, 2007; Miles & Huberman, 1994; Pyrczak, 2008), i.e. participants are selected based on their ability to purposefully inform an

understanding of the phenomenon studied (Creswell, 2007). Criterion sampling is also appropriate for phenomenology, because all participants in the research have to fulfill the criterion of having experienced the phenomenon (Creswell, 2007).

In the present study, the participants' recruitment was based on a short questionnaire, provided in Appendix A and emailed to all registered users of the MLEC Website. From the self-selected persons who responded to the questionnaire as interested in participating in the study, sample participants were divided into two groups. The first group of learners (n=5) was selected based on the criterion of having used the online self-study resources, provided on the MLEC Website, for at least three months at a frequency of at least twice a month. The second group of learners (n=6) additionally took advantage of online tutoring for at least three months and at least twice a month. Within each group, participants were chosen to maximize their diversity in order to capture the largest possible variety of experiences. Specifically, if there was a participant who was unique in the group based on a specific demographic category (such as age, educational level, previous experience with online language learning, heritage status, and frequency of contact with the Macedonian language), that participant was selected. Furthermore, care was exercised to represent an equal number of males and females. Between the two groups (tutored and untutored students), the researcher also aimed to compare the experiences of participants living in the same country or geographic region and therefore selected participants from each group living in the same country or geographic region. Several selected participants did not respond to the initial letter soliciting their participation and so the sample was redrawn several times until selected

respondents agreed to participate in the study. The demographics of the respondents to the survey gauging interest in the study and the demographics of the sample participants selected for the study are presented in the Results chapter.

### **3.3. Data Collection**

According to Bogdan and Biklen (2006), data are the "rough materials researchers collect from the world they are studying" and the elements on which analysis is based (p. 117). In qualitative research, these elements are records of "natural expressions of people in their environment," i.e. what people say or do and what gives meaning to their experiences (Mocker and Spear, 1982, p. 19; Bogdan & Biklen, 2006). Systematically and rigorously gathered empirical data separate grounded qualitative analysis from unfounded speculation and link qualitative research to other forms of science (Bogdan & Biklen, 2006). In this sense, "data are both the evidence and the clues" (Bogdan & Biklen, 2006, p. 117). Because phenomenology is concerned with the world of lived experience, this lifeworld "is both the source and the object of phenomenological research" (van Manen, 1990, p. 53).

The primary data sources for the study were the transcribed individual interviews based on open-ended questions, provided to the participants ahead of time. Other data sources included:

- field notes from the observation of a christening of the child of one of the participants, where the participant interacted in Macedonian with members of her community in an authentic situation reflecting cultural practices,
- researcher reflections on collaboration with two of the participants in a tutor-student

relationship,

- learners' reflective journals about their experiences and progress studying the language, and
- quantitative data from a previous pilot study (Belamaric Wilsey, 2013).

As is appropriate in phenomenology, the open-ended participant interview questions, provided in Appendix B, were revised as data gathering proceeded. In order to emulate the natural setting in which the learning takes place, the first set of interviews occurred via Skype. After the interview, the participants were asked to maintain a reflective journal with entries written shortly after learning sessions, such as interactions with the tutor or materials, how their learning was progressing, and what challenges they encountered. Only four participants actually maintained a journal: three participants emailed the researcher their entries, whereas the fourth used her pre-existing blog for language learning entries. Two of those participants maintained their journals for 5 months, whereas the other two maintained them for less than a month (4 entries in one case, 2 entries in the other case).

During this time period, the researcher observed the environment where one of the learners was interacting in the target language in her immigrant community environment during a cultural event: her child's baptism. During the observation, the researcher discussed with the participant the observed environment and interactions in both English and Macedonian. An additional follow-up interview, focusing on subsequent questions that arose as a result of the observation, took place via Skype.

While interviews and classroom observations are often used data sources, observation of cultural events may not be as easily accepted as a relevant data source. However, in the current study, it is a crucial element in order to examine language learning in "actual lived situations and communities of practice" (Brouwer & Wagner, 2004, p. 34) and to account for the meso- and macro-systems in which the learners operate. At least one previous study (Coleman 1996a, as cited in Tudor, 2001) used observations of behaviors in classrooms and at cultural events for investigating principles of "cultures of learning" (Cortazzi & Jin, 1996, as cited in Tudor, 2001), which participants in the study may themselves not be explicitly aware of but that nonetheless impact how they interface with the context. In addition to observing the type of interactions the learner was exposed to as further evidence of the participant's perceptions of her own ecosystem, the researcher also used this observation as part of a needs analysis for instructional design.

The data set additionally included quantitative data, not to determine correlations and make predictions, as in quantitative research, but to evaluate how this data supports or contradicts the "subjects' commonsense understandings, how enumeration is used by subjects in constructing reality," to determine trends, and to provide descriptive information (Gepart, 1988; as cited in Bogdan & Biklen, 2006, p. 154). The quantitative data used for comparison with the qualitative data gathered in the study comes from a pilot study (Belamaric Wilsey, 2013), for which an online self-report questionnaire was administered to MLEC users in April 2011.

### 3.4. Data Analysis

The data analysis, as required by the chosen phenomenological research design, involved several iterations of reading, writing, and configuration of meaning from the data over an extended period of time until themes emerge. As these themes emerged, they were organized and compared using not only text, as is common practice in qualitative research, but also with graphic organizers, as proposed by Miles and Huberman (1994). These researchers consider text to be a format that is weak, cumbersome, dispersed, poorly ordered, bulky, and monotonously overloading, and instead propose data displays to organize and compress the data into an immediately accessible form during the process of analysis and to allow for drawing valid conclusions and taking appropriate actions (Miles & Huberman, 1994, p. 11, p. 91). These data displays are iterative and evolving; they are used to guide further fieldwork, not only to analyze gathered data (Miles & Huberman, 1994). The types of data displays proposed for qualitative researchers include two major families: matrices, which include tables and charts; and networks, which include nodes with links (Miles & Huberman, 1994). Locke et al. (2010) agree that matrices, which they call tables, are a good format for condensing large raw data into a small space while preserving the precision of the data. However, it is impossible to visually display how close or far apart cases are on a given dimension (Miles & Huberman, 1994). Locke et al. (2010) also agree with Miles and Huberman (1994) that networks, which Locke et al. call graphs and figures, are appropriate for revealing trends and relationships and representing relative proportions. Data entered in the displays could be not only short blocks of text, as illustrated in the matrix above, but also

quotes, phrases, ratings, abbreviations, symbolic figures, labeled lines, arrows etc. (Miles & Huberman, 1994).

The researcher conducted both a within-case and a between-case analysis. In the within-case analysis, the researcher used three types of displays to summarize each participant's data: a critical incident chart, a social network matrix, and a word cloud. The critical incident chart listed critical events in the participant's life and was created in a word document based on iterative reading and re-reading of the participants' interviews.

The social network matrix, created with NodeXL (<http://nodexl.codeplex.com/>) and based on information from the interviews and journals, organized the participants' social networks in order to visualize their interactions in the target and native languages. Specifically, the frequency of interaction with each person in the network was coded as daily, weekly, 3-4 times a week, monthly, twice a month, and occasional; each type of interaction was assigned a different thickness of the interaction line (referred to as edge in NodeXL), the thickest (value 7) being daily interaction and the thinnest (value .5) being occasional interaction. These interactions were also color coded, with the color orange representing any interaction that included Macedonian. Dotted lines represented multilingual interactions and solid lines monolingual ones. The graph produced was an undirected graph with a modified Fruchterman-Reingold layout. The modification impacted the length of the line (edge) connecting the participant with each member (referred to as vertex in NodeXL) of the social network, which was determined based on the closeness of the relationship, as stated in the interview and relative to other members of the network. For example, spouse was deemed to

be a closer relationship than one with in-laws and therefore the interaction line with a spouse was shorter than with one's in-laws.

The word cloud, created with Wordle (<http://www.wordle.net/>), was created from the transcript of each interview as a graphical representation of the interviews based on the frequency of terms illustrated in the word cloud by their size. Common conversational hedging words such as "kind of," "uh," "yeah," "really," "like," and "just" and the words "Macedonia" and "Macedonian" were removed from the analysis manually in order to make the content more prominent. This removal could potentially introduce subjectivity in the analysis, especially with phrases such as "you know," which can have actual content meaning or be used for hedging. The researcher was sensitive to such issues when making decisions.

All three of these displays were used to frame the presentation of the participants' stories in the within-case analysis. In choosing which elements of the stories to highlight, the researcher also kept in mind the relevance of the information to the research questions and presented as much detail as the participants themselves divulged.

The between-case analysis was conducted by uploading the transcripts, journals, and other data sources into Atlas.ti, where selected passages were coded based on their reference to the research questions. Codes included: microsystem, mesosystem, exosystem, macrosystem, Macedonian-English conversations, tutored experience, learning process, effectiveness of process, use of technology, challenges, opportunities, advice, goal, impact on design, and others. The ones most represented were challenges (64 instances), microsystem (58 instances), and learning process (58 instances). For each research question, the researcher

then used Atlas.ti to pull out the responses from various participants into a word document, where these responses were read, reread, and organized into themes, which then became the basis of the between-case analysis. For more salient themes, such as, for example, motivation or challenges, the researcher used case-ordered descriptive meta-matrices, where the variable under examination was compared across cases. Based on these meta-matrices, the researcher then constructed a narrative.

Even though the interpretation of the data is subjective, the researcher made a concerted effort to let the data speak for itself and to provide only an organizational principle for presenting the data descriptions. Another means of mitigating the subjectivity of this research, as required by the chosen research design, includes verifying with the research participants that the analysis captures their experiences of the phenomenon comprehensively and accurately (Moustakas, 1994, p. 18). Therefore, the preliminary findings of the within-case analysis were submitted to the participants for comments and those comments were included in the presentation of the results of the study.

To summarize, the research design included data gathering through interviews, which were analyzed through iterative reading, entered into qualitative analysis software, and organized using graphic organizers until themes emerged. Field notes from the observation, other artifacts, and member checks were then used to validate the conclusions. When the data gathering and analysis concluded and the textual and graphic representations of the themes were prepared, the conclusions were compared with existent quantitative data (Belamaric Wilsey, 2013) and with other previous research.

### **3.5. Research Validity and Reliability**

#### **3.5.1. Validity**

Internal validity, which addresses how congruent findings are with reality, is considered a strength of qualitative research because qualitative data is not boxed in during data gathering for the purposes of analysis, as in quantitative research, but comes directly from reality (Merriam, 2002, p. 25) in all its complexities. For this reason, conclusions from qualitative research refer to people's actions in real situations and have ecological validity (Neisser, 1976, as cited in Pavlenko & Lantolf, 2000, p. 161).

The procedures for ensuring internal validity differ depending on the conceptualization of the concept of validity. For example, credibility is ensured through prolonged fieldwork and triangulation (Ely et al., 1991; Lincoln & Guba, 1985; both as cited in Creswell, 2007), through structural corroboration, consensual validation, and referential adequacy - criticism (Eisner, 1991, as cited in Creswell, 2007), through testing and confirming findings (Miles & Huberman, 1994), and through the process of description by the researcher and participants (Creswell, 2007). Miles and Huberman (1994) suggest that findings are tested and confirmed through a number of tactics, including:

- assessing data quality through checking for representativeness, researcher effects, triangulation (although according to Bogdan & Biklen, 2006, this imprecise term should be avoided), and weighing the evidence;
- examining negative evidence through looking for it explicitly, checking the meaning of outliers, using extreme cases, and following up surprises;

- testing explanations through making if-then tests, ruling out spurious relations, replicating a finding, and considering rival explanations; and
- getting feedback from informants.

In addition to feedback from informants (also known as member checks), negative or disconfirming case analysis, and triangulation, mentioned by Miles and Huberman (1994), other generally accepted validation strategies include prolonged fieldwork, peer review, reflexivity or clarification of the researcher position/bias, rich and thick descriptions, and external audits (Creswell, 2007; Locke et al., 2010; Merriam, 2002). Specific to studies in computer-assisted language learning, Ortega "urges researchers to diversify data sources, combining classroom and school observation, interviews, self-report data from questionnaires or think-aloud protocols, and computer-collected data to seek relationships across selfreports, observed behavior, and linguistic performance" (1997, as cited in Kern, 2006, p. 202).

The proposed study utilized the following strategies to increase internal validity:

- diversification of data sources by combining interviews, an observation, and self-report data from reflective journals/study notes;
- testing conclusions as an ongoing process integral to data collection and analysis;
- reflexivity and clarification of the researcher position/bias;
- rich and thick descriptions;
- member checks; and

- peer review, conducted by the researcher's doctoral research committee at North Carolina State University.

### **3.5.2. Generalizability**

Miles and Huberman (1994) explain that generalization in qualitative studies is "analytic" (p. 28), rather than from sample to population as in quantitative studies. Erickson (1986, as cited in Merriam, 2002) states that qualitative research illuminates concrete (rather than abstract) universals, whereas Eisner (1991, as cited in Merriam, 2002) points to the capability of qualitative research to create prototypes (skills and images) from which one can generalize as well. Other scholars postulate that generalizability is not applicable to qualitative research, since its aim is to focus on the particular and specific (Creswell, 2007; Fox, 1991; Merriam, 2002). Cronbach (1975, as cited in Merriam, 2002) proposes generalizing from working hypotheses (rather than the entire empirical research), and Patton (1990, as cited in Merriam, 2002, p. 28) substitutes the phrase "context-bound extrapolations" for the term generalizations. Specific to second language acquisition research, Pavlenko and Lantolf (2000, p. 161) summarize Polkinghorne (1988) when stating that the well-grounded conclusions, on which validity in narrative-based research is founded, propose likelihood rather than certainty since this type of research examines an open system. An open system includes external influences on components of the system; it evolves and adapts to environmental inputs via feedback (Davidson-Shivers & Rasmussen, 2006).

In any case, extrapolation or generalization is left up to the readers to apply to their own contexts case by case (Fox, 1991; Merriam, 2002). However, according to van Lier

(2003), this does not mean that the direction of impact is only one way - from the study's conclusions to the context it may be applied to, but that meaning is created and innovation emerges at the boundaries between systems in interaction (p. 62). In order to facilitate that interaction and increase generalizability, studies can employ strategies such as providing a rich and thick description to allow readers to decide whether the context is applicable to their own case, multi-site designs or maximizing the variation of the sample, and performing cross-case analyses (Firestone, 1993, as cited in Miles & Huberman, 1994; Merriam, 2002). The study took steps towards increasing generalizability by implementing three of the suggested strategies:

- providing rich and thick descriptions;
- maximizing the variation of the sample by selecting participants with varying demographics, learning goals, and study approaches (tutored vs. untutored instruction); and
- performing between-case analyses.

### **3.5.3. Reliability**

In the qualitative paradigm, reliability can be conceptualized in quantitative terms (Merriam, 2002), or as credibility (Eisner, 1991, as cited in Creswell, 2007), or as accuracy and completeness (Bogdan & Biklen, p. 40), or as dependability of the data and strength of data analysis (Polkinghorne 1988, as cited in Pavlenko & Lantolf, 2000). Reliability is a special topic of interest in qualitative research because the researcher is in fact the instrument (Merriam, 2002, p. 27), so reliability does not refer to the consistency and stability of

measuring instruments that always yield the same results (Polkinghorne 1988, as cited in Pavlenko & Lantolf, 2000). In fact, "[H]uman judgments are consistently less accurate than statistical/actuarial ones" (Miles & Huberman, 1994, p. 262). However, Bogdan and Biklen (2006) point out, two researchers focusing on the same setting could come up with different data and findings, but that does not mean that both studies cannot be reliable; the reliability would only be questioned if the findings were contradictory.

Reliability is increased by making it possible for other researchers to replicate the study with strategies such as providing rich descriptions and an audit trail that includes detailed field notes, analysis, coding descriptions, and a description of all the decisions made during the study. Different attempts can be made for controlling for the subjectivity of the instrument, including the researcher's own awareness, description, and reflections on it, as well as member checks and peer review (Creswell, 2007). Three archetypal biases researchers should be aware of are the holistic fallacy (interpreting events as more homogeneous than they are), elite bias (placing more weight on data from more articulate, usually elite informants, than on less articulate ones), and going native (losing one's own perspective because of the immersion in the participants' perspectives) (Miles & Huberman, 1994).

As dictated by qualitative research and specifically phenomenology, the proposed study achieved this outcome through:

- an audit trail;
- disclosure of the researcher's own approaches to the method and topic of inquiry

through a subjectivity statement, which also includes explanations of how the researcher dealt with the three archetypal biases explained by Miles & Huberman (1994);

- member checks;
- peer review conducted by the members of the doctoral dissertation committee; and
- triangulation of data (Creswell, 2007; Merriam, 2002) through interviews, an observation, participants' reflections, study notes, and use of quantitative data.

### **3.6. Subjectivity Statement**

#### **3.6.1. Researcher's Epistemology**

Doing qualitative research and using the phenomenological method in particular presupposes a certain epistemological view on the part of the researcher. Illuminating this epistemology is necessary for increasing the validity and reliability of a qualitative research study. In this section, the researcher's own epistemology is exposed through a reflective process that includes writing and understanding a history of philosophical thought (Moustakas, 1994; van Manen, 1990).

Thus, viewing my epistemology through the lens of history and philosophy, I find myself agreeing with the existentialist view of subjective human existence or being and the existence of objects before their essence. I am also influenced by the postmodern view that builds on these existentialist ideas, the view of the existence of a plurality of subjective perspectives in lieu of an objective truth. In further elucidating my epistemology of being or how the being of objects becomes known to humans, the concepts of noema (perception of an

object) and noesis (the essential meaning) are helpful (Moustakas, 1994, p. 29). There can be many different perceptions of an object depending on the nature and interests of the observer, but the near-infinite amount of perceptions are limited by the essential meaning of an object. To put it in existentialist terms, the noesis limits the range of authentic experiences or experiences that are in accordance with the self. But I believe that the self or essential meaning is constantly being examined as we continue to perceive the object in various situations or interactions. I agree with the existentialist idea that human experiences of the noema are the path to understanding some subset of the noesis. Further, it is possible, even highly likely, that in the course of a lifetime a human will not fully grasp the entire noesis. We can only generalize about the noesis from our own experiences of the noema. In order to generalize like that, we employ recall, reflection, and reasoning.

Departing from this epistemological view, I view the various methodologies of research as having the potential to elucidate different aspects of the noema. "...[E]ach perspective adds a meaningful layer without necessarily contradicting the others: a subjective understanding, an interpretive understanding (as rendered by the researcher), a positivist understanding (theoretical propositions according to rules of formal logic)" (Lee, 1991, as cited in Miles & Huberman, 1994, p. 5). In this way, both qualitative and quantitative methodologies can contribute to human knowledge of the topics they examine. However, because the basis of my epistemology is in the existence of various interpretations of reality, it is not surprising that I find appeal in the methodology of phenomenology, the study of describing and deriving essences of experiences from interpretations. Nevertheless, I believe

that the essence that is arrived at through this and other methodologies is still rooted in the researcher's subjective experiences of the phenomenon and the text that is the data. For that matter, the meaning of the conclusions is interpreted by the reader based on his or her own subjective noesis. I believe that it is not possible to bracket out one's own noema because these perceptions are not always conscious and because it is one's own experiences that make us interested in a phenomenon in the first place.

Because I do not believe one can have the vantage of a pure or transcendental Ego, I find myself aligned more with the empirical (Giorgi) and hermeneutic (van Manen) approaches to phenomenology than the transcendental one (Moustakas). The elements of hermeneutic phenomenology that appeal to me as a researcher include that "interpretation is not an isolated activity but the basic structure of experience" (Gadamer, as cited in Moustakas, 1994, p. 10) and that both researchers and readers make meaning through the reflective-interpretive circle (Titelman, 1979, as cited in Moustakas, 1994, p. 11). Hermeneutic phenomenology puts a large emphasis on interpretation of historical, philological, and artistic viewpoints, whereas empirical and heuristic phenomenologists postulate that these perspectives are not necessary to interpret experiences. In the design of this research study, socio-cultural influences are presumed to impact the participants' viewpoints and at least partially "account for and explain the meaning of the experience" as in hermeneutic phenomenology (Moustakas, 1994, p. 19). In fact, ecological research presupposes those broader influences and takes them into account in the examination of the macro-system as part of the entire learning ecosystem. In this study, as in empirical

phenomenology, "the aim is to determine what an experience means for the persons who have had the experience and are able to provide a comprehensive description of it" (Moustakas, 1994, p. 13). However, I also see principles of heuristic inquiry as impacting this research because my aim is that the people providing the experiences for the research as co-researchers should stay "visible in the examination of the data" and portrayed as a whole (Moustakas, 1994, p. 19).

Since in phenomenology, the researcher is the instrument, it is likely that my own experiences influenced the types of questions asked in the open-ended interviews and the coding and interpretation of the data. Therefore, a brief analysis of my own teaching and learning ecosystem is in order.

### **3.6.2. Researcher's Teaching and Learning Ecosystem**

The researcher's microsystem includes two of the tutored participants, with whom the researcher/tutor had weekly meetings via Skype throughout the data gathering and analysis in the study, and any users of the materials on the site who seek technical assistance, which the researcher provides. As a doctoral student in Instructional Technology, the researcher also has regular interactions with other learners and instructors in the department and college where she studies and from these interactions she makes generalizations about learners' preferences and attitudes towards online study of subjects other than languages. In addition, professional conferences provide opportunities for individual interaction with other graduate students and professionals in the field and these interactions also impact the researcher's view on the online teaching and learning process. Lastly, as the founder, executive director, and

instructional designer for the MLEC, the researcher also has interactions with the board members of MLEC, who impact directions for future development of materials. All the aforementioned relationships positively impact the researcher's viewpoints through dialogue in the Freirian sense already described. The researcher's microsystem also includes her immediate family in the U.S., with which interactions take place in both English and Macedonian. Therefore, these interactions contribute to the preservation of the researcher's language skills in Macedonian, the language she teaches. Furthermore, interactions via Skype, Facebook, and email with friends and family in Macedonia, the country she was raised in and grew up in, help the researcher keep her language/idiolect and knowledge of the culture current.

The mesosystems of most interest to the present study are the researcher's interaction with the users of the self-paced tutorials on the MLEC Website who also belong to the microsystem of tutored learners, and how the researcher's family and social life impacts her professional life and vice versa. Because during synchronous tutoring, learners are sometimes referred to the self-paced tutorials for remediation or more information, these two microsystems exhibit some overlap. On the other hand, the researcher's family obligations place demands on time and attention that detract from her focus on online teaching and learning, instructional technology, and tutoring. This effect is especially evident when tutoring sessions have to be rescheduled due to family or other professional events. The effect is also reversed, when tutoring sessions sometimes take precedent over family or other professional events. Additionally, the researcher/tutor has developed excellent rapport and

personal relationships with the learners that she has been working with for extended periods of time, and some have even stated that they consider her a friend and she likewise.

The exosystems that impact the researcher's relationship with the participants in the study include the pedagogy and instructional technology curricula that have mandated the reading and understanding of particular research and best practices as part of the formal education that the researcher has undertaken. These exosystems have had a large impact on the principles on which the MLEC materials and curriculum were designed and developed as well as on the principles that guide the researcher's work with the tutored students and her research. The MLEC materials and curriculum in turn make an undeniable impact on the learning process of the non-tutored participants in the study by providing the content for their study.

Lastly, the macrosystem of the researcher also has an impact on her approaches to tutoring, teaching, learning, and designing online language learning materials. The researcher's macrosystem includes not only the sociocultural beliefs and practices of U.S. society, where she has lived, worked, and learned for more than half of her life, but also those of Macedonian, Serbian, and Croatian society, where she spent the early years of her life and with some of which she maintains a close relationship. In examining the impact of the macrosystem(s), a useful concept is that of Bhabha's (1992, as cited in Kramsch, 1996, p. 7) "third space" or Kramsch's (1993) "third place," which is located at the intersection of multiple native and target language learning cultures. Van Lier describes this place as "a vantage point that draws on varieties of cultural information to form differentiated sets of

positions ... from which to craft new identities" (2004, p. 185). Therefore, the researcher's own macrosystem represents a "third place" which draws on Macedonian, Serbian/Croatian, and American social and cultural notions. Sometimes these notions are at odds with each other, such as in ideas about multilingualism and multiculturalism. For example, while multilingualism is celebrated in Serbian/Croatian culture (the proverb "Колико језика говориш, толико вредиш" (Your worth is determined by the number of languages you speak) comes to mind), mainstream American culture and viewpoints are predominately, some would even say "staunchly" (van Lier, 2004, p. 51), monolingual. This dichotomy means that while in Serbian and Croatian society, and similarly in Macedonian society, there is cultural and therefore social and institutional support for learning a foreign language, such as English, French, or German, from an early age, in American society, support for learning foreign languages such as Macedonian, Serbian, or Croatian is not provided. This limits the foreign language learners' options for formal language study and has a direct impact not only on the research questions of the present study but also on the general topic of this research.

When discussing the meso-, exo-, and macro-systems and the impact of the latter on the two former systems, the researcher acknowledges that heritage speakers (those who were originally exposed to the language they are learning by their parents or grandparents at home) have much in common with the researcher herself in terms of their existence in and understanding of Kramsch's "third place." Whether conscious of the third place or not, foreign language learners often ask questions about cultural expectations in the target culture

and a tutor/teacher who can speak from the perspective of that third place, acknowledging both the native and target cultures, can provide a uniquely useful perspective.

### **3.6.3. Ethical Issues**

The research design, data gathering and analysis are not only influenced by the researcher's own epistemology, demographics and past experiences, but also by her lead role in conceptualizing, designing, and creating the resources available on the MLEC Website, and perhaps most obviously, by her role as a tutor for two of the learners surveyed in the study who employed tutoring as a learning strategy. Having the researcher also be the tutor for some of the participant-learners and the designer of the instruction for the remaining participant-learners does have ethical implications for the research. The proposed research design assured that participants were not coerced into participating in the research by clearly stating that they are under no obligation to participate and can drop out of the study at any time without any consequences or repercussions. In addition, they were provided with the email address of the researcher's advisor, whom they could have contacted with any concerns. Furthermore, participants had the opportunity to perform member checks, i.e. as co-researchers, they were able to co-construct, review, and comment on the findings pertaining to their case in continuous dialogue with the lead researcher.

Additionally, the interview questions and observations did present a demand on the participants to share their social lives with the researcher in order to draw conclusions about their entire learning ecosystem. The participants were assured that their identities and anonymity would be preserved, but the study acknowledged that the participants, especially

in their reflective journals, may not have provided complete data about their reflections due to privacy concerns. Triangulation with an observation of a cultural event helped mitigate this possibility in one participant's case. Similarly, participants may have been hesitant to share their study notes with the researcher for fear of the researcher realizing they wrote down incorrect information. The researcher mitigated this fear by clearly explaining that the study notes were merely data for the research, not a reflection of the competence of the participants.

According to van Lier, educational research may pretend to be neutral, but it cannot afford to be because "too much is at stake" (2003, p. 51). Therefore, ecological research is by definition transformational for the participants, the researcher(s), as well as for the readers. While the present study does not have the explicit aim of instigating transformation in the participants' viewpoints (none of the research questions are emancipatory, as defined by Marshall and Rossman, 2006), it is possible that such consequences will emerge unconsciously and without coercion through the participants' reflections in their journals and during the interviews. In fact, phenomenology as a methodology can transform individuals through reflective awareness in the natural attitude (Dowling, 1997). The possibility for this unintended consequence was clearly explained to the participants in the study prior to their agreement to participate.

The researcher also took precautions to avoid the holistic fallacy, elite bias, and going native. Specifically, acronyms were used to refer to the participants in the analysis and codes were used in Atlas.ti. Furthermore, the length of the descriptions reflected the amount of data

that was shared by the participants and not the researcher's familiarity with the subjects or elements of their demographics. Lastly, the graphic organizers that were created assisted the researcher in not only supporting themes and statements but also rethinking and challenging assertions by looking for proof to the contrary.

In addition to the already discussed safeguards against researcher bias and for protecting the participants in the study, the proposed research design was submitted for scrutiny by the institutional review board at North Carolina State University. This board's purpose is to protect the rights and welfare of human subjects in research.

### **3.7. Limitations of Study**

Some of the limitations inherent to qualitative research methodology have already been mentioned in the sections on validity, generalizability and reliability, including the subjectivity of the researcher as instrument. It was also mentioned that different attempts were made at controlling for this subjectivity, including the researcher's own awareness, description, and reflections on it, as well as triangulation and diversification of data sources, member checks, and peer review.

Additional limitations are inherent to the setting of the study and the types of materials provided on the MLEC Website. For example, the materials do not provide learners with the opportunity to record their speech stream and analyze or compare it visually with that of a native speaker. Additionally, research on the forefront of intelligent computer assisted language learning (ICALL) is not reflected in the interactivity of the materials provided on the Website, i.e. the feedback is general and not individualized based on the

types of mistakes a particular learner might make. Lastly, because the tutorials are flash-based, users of Apple products cannot currently take advantage of them, limiting the population of learners available for the study.

Further limitations of the study are inherent to the researcher's simultaneous role as researcher and paid tutor to two of the study participants. It is possible that those participants in the study discussed their experiences as more positive than they actually view them in an attempt to, consciously or subconsciously, please or praise the tutor's performance and maintain a positive relationship with the tutor. Similarly, as a tutor, the researcher may have avoided asking difficult questions or drawing negative conclusions in order to please or praise the learners, who read the study and performed member checks, and in order to maintain positive relationships that perpetuates the financial gain the tutor's non-profit organization has from these relationships. The researcher believes that neither of these possibilities was realized in the study because the tutor and these learners already have established excellent rapport, the tutor personally did not receive compensation for the tutoring, and because as paying customers, the learners were free to stop participating in the tutoring at any time if they were dissatisfied with any aspect of it.

On the other hand, the involvement of the tutor as researcher may have had positive effects on the validity of the study, because she was in fact embedded in the learning process and ecosystem and observing it from within, rather than without. This has benefits such as minimizing observer's paradox (also known as observer effect, or Heisenberg effect), the effect that the presence of a researcher changes the behavior of the observed participants

(Bogdan & Biklen, 2006). If a researcher has already established good rapport with the participants, the interviews can be modeled after "a conversation between two trusting parties" (rather than a formal question and answer session) and therefore yield results that are more indicative of the natural setting (Bogdan & Biklen, 2006), thereby increasing the accuracy and reliability of the data. Furthermore, several of the participants stated they enjoyed the interview, showing evidence that they were indeed conversations with a trusted partner.

### **3.8. Summary**

This chapter focused on the methodologies and methods chosen for the proposed study and aimed to explain not only which research approaches were chosen but also to answer the question why those particular decisions were appropriate for the research questions at hand. The following chapters present the data gathered, how that data was organized and analyzed, and what results emerged. The researcher discusses the results and draws conclusions in order to answer the research questions posed in the study. The discussion of results connects the present study to prior research and takes into consideration the hypotheses based on that research, which were proposed in the literature review.

## **4. RESULTS**

### **4.0. Introduction**

This chapter is organized in three sections. The first section outlines a general description of the sample, including what data was collected from each participant and their demographics. In the following section, the results of a within-case analysis are described for each of the participants in the study. In addition to the short description of the learners and their context, a brief summary of the answers to the research questions are provided for each individual participant as part of a within-case analysis. In the final section, a between-case analysis compares the individual participants' experiences regarding each of the research questions to paint a complex picture of informal language learning with online resources. In order to maintain the participants' privacy and their humanness, the data is presented using pseudonym names that were relatively arbitrarily assigned.

### **4.1. Sample**

When the survey that probed interest in the study was sent out, 28 people responded, including 11 who stated that they had enlisted the assistance of a tutor and 17 who stated that they had not. The demographics of respondents are presented in Table 2 for untutored respondents and Table 3 for tutored respondents. Several participants who were first selected for the sample did not respond to an email regarding setting up the interview, and therefore the sample was redrawn several times until a total of 11 participants agreed to participate. The demographics of the chosen sample are presented in tables 4 and 5.

Table 2. Demographics of untutored respondents.

<b>Untutored respondents</b>	Age	Gender	Country of residence	Education level	Online language learning experience	Frequency of contact with Macedonian language	Heritage learner or not?
Total: 17	6 21-30 9 31-40 1 41-50 1 51-60	9 male 8 female	4 USA 3 Macedonia 1 Albania 1 UK 1 Bangladesh 1 Spain 1 Australia 1 Turkey 1 Canada 1 Ukraine 1 Russia 1 Hungary	3 HS diploma 8 Bachelor's 4 Master's 2 Doctoral	10 first experience 5 studied another 2 studied several	7 daily 3 weekly 2 monthly 5 almost never	4 heritage 13 not

Table 3. Demographics of tutored respondents.

<b>Tutored respondents</b>	Age	Gender	Country of residence	Education level	Online language learning experience	Frequency of contact with Macedonian language	Heritage learner or not?
Total: 11	1 <20 1 21-30 4 31-40 1 41-50 1 51-60 3 >61	7 male 4 female	4 USA 2 Macedonia 1 Egypt 1 Greece 1 Morocco 1 Canada 1 Turkey	1 not grad HS 3 HS diploma 2 Bachelor's 1 Master's 4 Doctoral	10 first experience 1 studied another	7 daily 3 weekly 1 almost never	4 heritage 7 not

Table 4. Demographics of untutored participants.

<b>Untutored participants</b>	Age	Gender	Country of residence	Education level	Online language learning experience	Frequency of contact with Macedonian language	Heritage learner or not?
Total: 5	2 21-30 2 31-40 1 51-60	1 male 4 female	1 USA 1 Macedonia 1 Albania 1 Russia 1 Hungary	1 Bachelor's 3 Master's 1 Doctoral	2 first experience 2 studied another 1 studied several	1 daily 2 weekly 1 monthly 1 almost never	5 not

Table 5. Demographics of tutored participants.

<b>Tutored participants</b>	Age	Gender	Country of residence	Education level	Online language learning experience	Frequency of contact with Macedonian language	Heritage learner or not?
Total: 6	1 31-40 1 41-50 1 51-60 3 >61	3 male 3 female	3 USA 1 Macedonia 1 Greece 1 Canada	2 HS diploma 1 Master's 3 Doctoral	6 first experience	4 daily 1 weekly 1 almost never	2 heritage 4 not

Of these 11 participants, one person (referred to below as Kaltrina) only responded to interview questions via email, and the remaining 10 were interviewed via Skype. Of those 10, one person (referred to below as Constantine) was not comfortable enough with English to conduct the interview in English so a combination of German, Macedonian, and English was used. The transcript was then translated into English. Additionally, learning journals were collected from four participants, one of which was tutored by the researcher, so the researcher had access to homework and Skype tutoring session notes. The researcher also had access to Skype tutoring session notes from another of her own tutored students, whom she also observed at a cultural event in the student's Macedonian immigrant community. Altogether, over 120 pages of transcriptions, journals, and observation notes were collected and analyzed. Member checks were performed by: Ashley, Beatrice, Constantin, Diana, Emma, Frank, Grace, John, and Kaltrina. Insights from these member checks were included in the presentation of the results. Although Henry acknowledged receipt of the text, he never followed up with comments. Iris never acknowledged receipt of the text.

One issue that emerged once the researcher began interviewing the participants was that the two categories of untutored and tutored were not as clear cut as originally assumed. Specifically, two participants thought of their tutor as a significant other: in one case the participant considered his wife a tutor, even though they did not hold structured or regular “tutoring” and in another case the tutor became the participant’s significant other after an extended time period of structured tutoring. A third participant had previously enlisted the help of a tutor but was not using the tutor’s services at the time of the interview. A fourth participant was not studying with a tutor but was enrolled in a university course and had previously studied the language in formal settings. Despite these experiences, she considered herself an untutored participant because she felt she was alone in her study of advanced Macedonian. Another complication for this study of Internet-based resources was that only three of the six participants who considered themselves in the tutored category were using the Internet (Skype) for tutoring. Therefore, generalizations about the tutored category would not be useful to the question of online resources. For these reasons, the categories of untutored and tutored are maintained in the analysis only as an organizing structure.

## **4.2. Within-Case Analysis**

### **4.2.1. Untutored Participants**

#### **4.2.1.1. Ashley.**

At the time of data collection, American-born Ashley was living in Kumanovo, Macedonia, with her Macedonian-born but English-speaking husband. Living in Kumanovo greatly impacted her learning experience, hence “kumanovski,” the dialect spoken in



component. It was not until after she met her future husband that she became determined to learn a foreign language: “He gave me more motivation to learn a foreign language and to see it through.” After she decided to move to Macedonia with her husband, her motivation for learning Macedonian changed to being able to live in Macedonia and find a job there. Ashley’s critical incident chart is presented in table 6.

Table 6. Ashley's critical incident chart.

<b>Time period</b>	<b>Critical incidents</b>
	<ul style="list-style-type: none"> <li>• 9 months in Afghanistan as an auditor, where she meets Macedonians, including her husband-to-be</li> <li>• Starts studying Macedonian through software she found/purchased from Amazon.com</li> </ul>
	<ul style="list-style-type: none"> <li>• Comes back to US with boyfriend/husband-to-be</li> <li>• Stops studying Macedonian</li> </ul>
	<ul style="list-style-type: none"> <li>• Decides to move to Macedonia and starts studying Macedonian again</li> <li>• Searches online for more learning resources</li> </ul>
June 2010-December 2010	<ul style="list-style-type: none"> <li>• She moves to Macedonia and lives with Macedonian in-laws</li> <li>• She gets a tutor for a couple of months, but it doesn’t work for her</li> </ul>
December 2010-June 2011	She moves back to the U.S.
June 2011-August 2012	<ul style="list-style-type: none"> <li>• She moves back to Macedonia, but lives in an apartment not with her in-laws</li> <li>• She continues to study the language with online flash cards she self-programs based on a phrasebook</li> </ul>
August 2012-present	Together with her husband, she moves back to the US, and has not continued her study of Macedonian

Ashley used software regularly to study mostly vocabulary and phrases, and the importance of this resource is evident by the relative prominence of the word “software” in figure 6. In addition, Ashley had enlisted for two months the help of a tutor who was a teacher of English in Macedonia. Ashley’s experience with the tutor was negative because:

“...it wasn't very structured and I felt like I could do the exact same or if not better on my own... so I just went back to the software.” In addition, the tutor was unable to answer most of the questions Ashley had about grammar, resorting to the answer “That’s just the way it is.” The impact of software and using a tutor for studying is illustrated in figure 6.

The first challenge to learning Macedonian that Ashley reported was lack of commercially available software, as she first tried looking for Rosetta Stone for Macedonian and was unable to find any. She was later able to purchase and use several other multimedia and book resources, and she also found and used free resources such as the ones provided by the Macedonian Language E-learning Center.

The second challenge she reported was that she was learning the standard language, whereas the family and friends she was living and interacting with were speaking one of the Macedonian dialects. This had a negative impact on her studies: “it's a different world. I'm studying one language and they speak another. It's very very discouraging.” This situation contributed to her withdrawal from asking for help with studying: “I kind of study alone now. I used to study more around the family, and they would correct me or help...” Ashley discussed her process of studying quite a bit, as illustrated in figure 6, where the words “studying” and “study” are quite prominent. In addition to practicing the language daily with her in-laws, Ashley reported that her social network included biweekly visits with relatives and friends of her husband, with whom she spoke the standard dialect and who responded to her in their dialect. The importance of speaking the language is illustrated by the frequency and prominence of the words “speaks,” “speak,” “speaking,” and “spoke” in figure 6.

Ashley's social network matrix representing her individual network of practice (INOP) is presented in figure 7. Interactions in Macedonian are marked in orange, whereas those in English are marked in gray. The shorter the line representing the interaction is, the closer the relationship represented by that line; the thicker the line, the more frequent the interaction. The matrix does not aim to capture Ashley's entire social network, but only the portions relevant to her INOP for Macedonian, which were considered in the study and discussed in the interview.

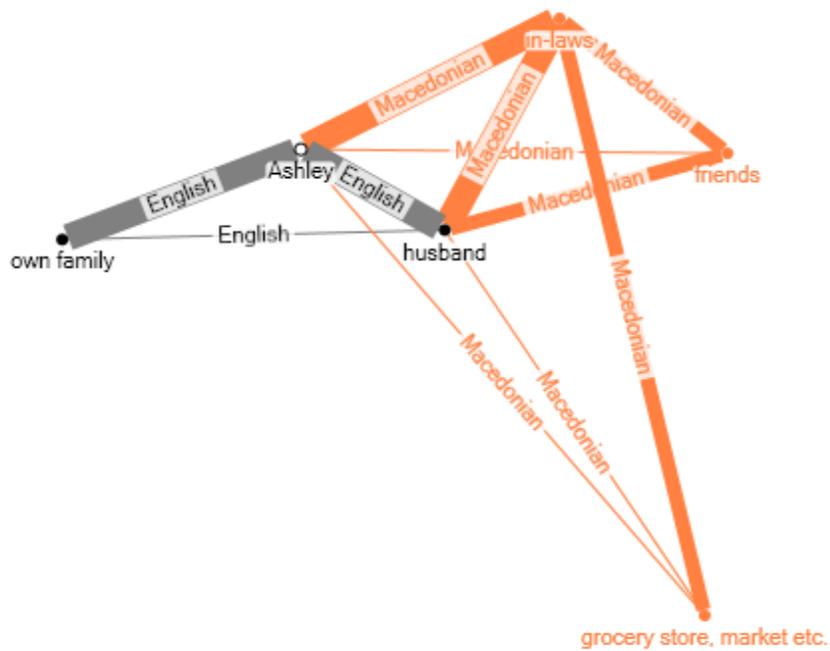


Figure 7. Ashley's social network matrix.

Ashley went grocery shopping in the bigger supermarkets, where she used Macedonian, but left the domain of shopping at the farmers' market to her in-laws. In this domain, because of her accent, she would have almost certainly had to pay more for any purchases because of cultural idiosyncrasies. Cultural idiosyncrasies, for which no language software prepared her, were also a challenge or source of frustration for Ashley. Although her husband discussed certain elements of the culture with her before moving to Macedonia, Ashley continues to learn about and struggle to accept certain cultural practices.

When she gets frustrated, Ashley reported regaining her motivation by just living her daily life in Macedonia ("A conversation with a complete stranger will motivate me to study.") and wanting to have a relationship with her non-English speaking in-laws and relatives. She exhibited other autonomous learning behaviors, as well. For example, the idea to study Macedonian was a completely independent one, and not endorsed by her job, family, or social network.

Stemming from her own challenges, Ashley had one suggestion for developers of instructional materials: to develop materials, such as word lists, that focus specifically on each of the Macedonian dialects. The advice she would give other learners of Macedonian is to "study every day a little and don't force yourself too much. And be consistent."

When the researcher contacted Ashley for a member check, Ashley reported that life in Macedonia was too difficult for her, in particular her inability to get a job. As a result, she moved back to the U.S. with her husband. She reported not speaking Macedonian any longer, other than using it as a secret communication tool when she speaks with her husband and



Hungary, her language studies fell into a secondary role because she was working on her dissertation in Tibetan language. Several years later, the opportunity to study Macedonian returned, as her interest in Macedonian became known to a young Macedonian lecturer who wanted to elevate Macedonian language and literature study to the level of a department at their university. In order to do this, two Ph.D. students were needed and Diana became one of those students. The long period in which Diana’s interest in Macedonian was nurtured is illustrated in figure 8 by the relative prominence of the word “years.” The possibility of employment after graduation, which was not there after her first Ph.D. in Tibetan language, added to Diana’s interest in prioritizing her study of Macedonian. Diana’s critical incident chart is presented in table 7.

Table 7. Diana's critical incident chart.

<b>Time period</b>	<b>Critical incidents</b>
Late 1980s	She travels to Macedonia; she falls in love with the country and people
Mid 2000s	<ul style="list-style-type: none"> <li>• She finds that Macedonian is offered at her university as a subject; she signs up and is the only student</li> <li>• She gets a scholarship for a summer seminar to study Macedonian in Macedonia</li> <li>• She goes back to Hungary to continue other studies, falls behind in Macedonian, and earns her degree but no employment</li> </ul>
2011	<ul style="list-style-type: none"> <li>• An opportunity arises to possibly get a job as a Macedonian lecturer, but first she has to get her Ph.D. in Macedonian</li> <li>• She watches Macedonian TV channels, movies</li> </ul>
April 2012	She goes to Macedonia to meet people and get books/resources
Summer 2012	She goes back to the summer seminar to study Macedonian in Macedonia
Fall 2012	She begins a two-three year Ph.D. program in Macedonian literature at her university

Diana was able to get physical resources for studying Macedonian through the seminars she had attended in Macedonia and the instructors she met there, although there were no resources for studying Macedonian in Hungarian. She had to translate dictionaries and textbooks into Hungarian via English. The importance that Hungarian played in her study of Macedonian is illustrated with the large prominence of the word “Hungarian” in figure 8. In addition to physical resources, Diana was able to watch Macedonian TV channels and movies with Macedonian subtitles on the Internet until recently, when they became blocked. Other resources she was able to find on the Internet were dictionaries (Macedonian-English), resources provided by the Macedonian Language E-Learning Center and some e-textbooks aimed at Macedonian children, which she was able to download. She also regularly uses the Internet to access news in Macedonian, music via YouTube.com, and to connect to Macedonians via Facebook, spending on average 5-6 hours a day interacting with the Macedonian language.

However, her greatest challenge remains finding opportunities for practicing speaking. Her social network consists of one Macedonian friend with whom she occasionally gets together for coffee (but they do not speak exclusively Macedonian), her daughter who helps with encouragement and sometimes with language drills, and a classmate who is focusing on Bulgarian studies and therefore understands the difficulties inherent to studying a south Slavic language. Diana’s INOP is presented in figure 9. As before, the length of the line representing the relationship is an indicator of its strength or closeness (shorter line is a closer relationship), whereas the thickness of the line represents frequency (the thicker the

line, the more frequent the interaction). Dotted lines represent using two languages for the communication and if any Macedonian is used in communication, the line color is orange.

Although the network may seem rich in opportunities for practicing Macedonian, Diana stated that she feels alone in her Ph.D. studies: "I mean no material and professor here, who knows the language or the Macedonian literature well in details." This reason is why she considers herself an untutored learner. In her member check, Diana added that to get the information she needs, she relies on professors in Macedonia that she met during the Macedonian language seminar she attended. She communicates with these professors long-distance, using Internet technologies.

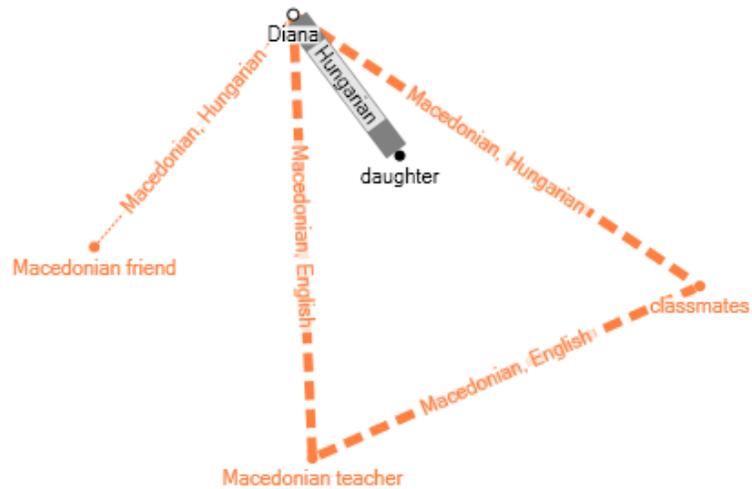


Figure 9. Diana's social network matrix.

Diana's interest in language study began in her childhood, when she watched a Saturday morning children's program that taught German. She recounts:

It was very interesting. I was only six years old. And nobody was speaking German in our village. Only me. ... I decided somehow - not very seriously like an adult but I knew there is a program for me every Saturday morning and I sat down and learned "Gutten Tag, gutten Morgen."

Later on, during her compulsory Russian studies, she realized that with Russian, which is a Slavic language, she could understand her grandmother's Old Slovakian gossip, because this dialect has common roots with Slavic languages and is dissimilar from Hungarian (which is not a Slavic language). These events positively influenced her interest in studying foreign languages, which is not very common in Hungarian culture.

Stemming from her own challenges with finding opportunities to practice speaking, Diana stated that it would be useful for her studies to have someone with whom she could practice Macedonian one-on-one as well as to practice in a group. She perceived a tutoring relationship as more useful for learning a language, whereas practicing with a group would be more for fun. The important role other people play in learning a language is also evident by the prominence of the word "people" in figure 8.

Diana's advice to learners of Macedonian is to motivate themselves by finding products, practices or elements of Macedonian culture that interest them: "only to study the language is not enough, I think. In my opinion, it will never be alive, it's like a dead language." She also encouraged learners to work through the difficulties and never give up.



Table 8. Emma's critical incident chart.

Time period	Critical incidents
	<ul style="list-style-type: none"> <li>• Born in Belarus, but was always proud to know she had "blood that was different than Belorussian" because she likes to stand out</li> <li>• Since the age of 11, she had been exposed to foreign language movies and music via satellite</li> </ul>
2004	She briefly meets Macedonians while working as an English translator at a music festival featuring international singers
2005	She moves to St. Petersburg, Russia
2010	<ul style="list-style-type: none"> <li>• She meets a Macedonian friend online</li> <li>• She begins to listen to Macedonian pop music, specifically a famous Macedonian pop singer and becomes motivated to learn the language</li> <li>• She looks for resources, bought a Macedonian-Russian dictionary</li> <li>• She visits Macedonia, meets a love interest and begins a long-distance relationship</li> </ul>
2011	<ul style="list-style-type: none"> <li>• She visits Macedonia for a second time</li> </ul>
Summer 2012	She goes back to Belarus to help out with the week-long music festival and meets her favorite Macedonian singer as well as other Macedonians whom she first met in 2004 and with whom she continues to stay in touch using Internet and phone technologies

Once Emma decided to study Macedonian, she ran into the first challenge, lack of books. She was able to find a Macedonian-Russian dictionary, but nothing else. So, she turned to the Internet and began searching for online resources. She found pdf files of old Macedonian grammars and Websites with useful phrases, but nothing structured. This was a challenge because Emma is “the kind of person and teacher, I like everything to be in order.” Later on, she found several Websites, including the Macedonian Language E-Learning Center, which she found to be well organized and is currently using as one of her primary resources for learning the language. However, she felt that even more exercises are needed for practicing grammatical concepts and vocabulary. Online exercises are especially helpful, she recounted, “because it's more interesting this way.” The importance of studying grammar

through exercises is also evident in figure 10, where the words “grammar” and “exercises” are somewhat prominent.

She devised her own studying routine of working through vocabulary in her dictionary by creating sentences for each word and asking for help from her Macedonian friend when she has trouble creating sample sentences. She fits in this routine into her daily work-travel schedule and works on the sentences on the metro or bus as she’s going from one class to another and when she is not grading her own students’ work. In addition, she keeps the language in her ears and on her mind by listening to her favorite Macedonian singer. Emma’s repetition of the words “people” and “friend” resulted in the high prominence of these words in Emma’s word cloud (figure 10) and are also indicative of the important role they play in her language learning experience.

Although people in Russia and Belarus study foreign languages, specifically English and German, from a young age, their study is not effective because as adults they rarely speak English or other foreign languages. However, Emma considered herself fortunate to have had a good English teacher who instilled in her the desire to learn the language well and ultimately to choose to focus on English as her profession. Her parents were supportive as well, playing foreign music and movies in the home via satellite and exposing her to English computer games. Therefore, Emma had a very positive language learning experience with English, which contributed encouragement to her desire to study Macedonian.

In terms of her social network, Emma has her Macedonian friend with whom she speaks almost daily and is also in a relationship with a Macedonian. But, she does not speak

exclusively Macedonian with either of them for two reasons: first, when they began communicating, they used English and "that is why it is hard to readjust now;" and second, because "it's more convenient to speak in English, as we both understand it perfectly." Since meeting Macedonians at the international festival, Emma has stayed in touch with them through email and SMS messages, which she writes in Macedonian. With these contacts, Emma stated it is easier to speak Macedonian: "I just try to use Macedonian all the time and use English only in situations when I need to write something very fast or to convey very complicated ideas." Emma's INOP, as described in the interview and journal, is portrayed in figure 11.

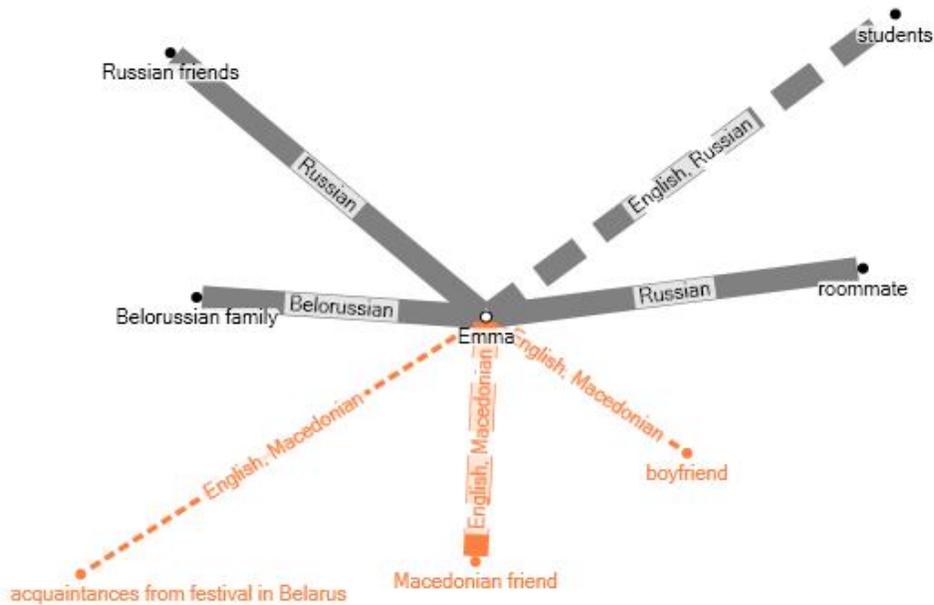


Figure 11. Emma's social network matrix.

Emma has visited Macedonia twice, but was mostly using receptive language skills, such as listening, rather than engaging in language production, i.e. speaking. She did sometimes communicate with her host/friend's family in Macedonian. She described her interchanges with other Macedonians thusly:

Mostly people ... didn't switch to English ... for me. So they were talking Macedonian and I could understand some things, but not all of them of course. That's why sometimes it was kind of frustrating for me. Naturally they talked to each other and then they'd ask me if I understood or not so I had to explain to them.

Nonetheless, she felt that spending time in the country is essential to learning the language: “Because when you visit, then you see the culture, you see the people, you communicate or you just listen to people talking in Macedonian. And that helps a lot.” Emma reported some challenges inherent to following that advice included having the time and money to travel to Macedonia. In fact, lack of free time was a challenge she kept coming back to throughout the interview, since she does not have a set work schedule or a routine within which to fit in Macedonian. This repetition of the concept of time is also evident in figure 10, where it is one of the most prominent words.

A final challenge was presented to her when she saw transliterated Macedonian. Macedonian is normally written in the Cyrillic alphabet, similar to Russian, and sometimes transliterated in the Latin alphabet but following a different code than the one used for Russian. She said:

...a lot of people use Latin letters. Firstly, it was a big frustration for me because I couldn't understand when I read in Latin letters. ... now I got used to transliteration so I know which letters substitute Cyrillic letters. Now it's easier.

The advice that Emma would offer to other learners of Macedonian is “to find a friend. And probably not a native speaker but a person who is trying to learn the same language because then you'll have less fear to make mistakes and to feel stupid. And to practice together...” Exemplifying her own use of technology, she also advised other learners to use online social networks to get in touch with Macedonians if not for practicing productive skills, at least for acquiring new vocabulary by reading and trying to understand posts written in Macedonian.

#### **4.2.2.4. John**

John is a monk, currently living in a monastery in New Jersey, U.S.A. From 1976 to 1987, John lived in Thessaloniki (also known as Solun), Greece. This region of Greece is inhabited by people who are historically of Macedonian ethnicity but who are not recognized as a minority by the Greek government and therefore not protected by laws governing the rights of minorities in the European Union. In the past, the Macedonian minority in Greece was forbidden to use Macedonian in private and public communication and therefore this community was distrustful of foreigners such as John inquiring about their native language. But during the time that he lived in Solun and studied theology at the university, John found out about the plight of the ethnic Macedonians in Greece and became interested in their



Table 9. John's critical incident chart.

Time period	Critical incidents
1976-1987	<ul style="list-style-type: none"> <li>• He studies in Thessaloniki, Greece, engages with Macedonian minority in Greece, travels to Macedonia occasionally</li> <li>• He moves back to the U.S., where he lives in a monastery in NY state</li> </ul>
1987-today	<ul style="list-style-type: none"> <li>• He is looking for resources for studying and maintaining Macedonian</li> <li>• He has met a few Macedonians in NYC</li> <li>• He mostly reads newspapers online</li> </ul>

In order to study and maintain the language, John spends about 15 minutes daily looking at newspapers, doing lessons on the Macedonian Language E-Learning Center Website, and on another Website based out of Greece. John recounted that the Macedonian newspapers he reads mostly report internal politics, which he admitted was not one of his interests. He also listens to a weekly Saturday morning Macedonian radio show based out of New York. This show reports the week's news and plays selections of Macedonian folk music, which John enjoys. As part of his daily routine, John also reads online newspapers to maintain his knowledge of several other languages: German, French, and Greek. He stated:

Generally I go through five languages a day, I mean reading newspapers on the Internet, at least five. Sometimes it depends on how much energy I have and what the issues are. And by the way I do contribute to a couple of Websites.

In addition, every other year he reads the Bible translated into one of the foreign languages he knows, followed by reading it in English the year after. John's study and maintenance of many languages is also evident in figure 12, where "languages" is one of the more prominent words. This study is focused on getting information, which is illustrated by

the relative prominence of the words “information,” “newspapers,” “site,” “website,” and “bible” in figure 12. Because his social network consists of his colleague-priests, with whom he interacts in English, a social network matrix was deemed obsolete and not drawn.

John’s interest in foreign languages came to the fore when he was 14 years old, fueled by his interest in theology. Since he turned out to be good at it, he was encouraged to continue studying them and to live abroad.

Among the challenges for studying Macedonian that John reported was the lack of a community in which he could interact in Macedonian and the lack of time to dedicate to a serious study of the language. While he thought speaking Macedonian would be a benefit, he realized that the only way to really advance in oral communication is to live in Greek Macedonia or Macedonia proper. He recognized that if he were to seek out a community of Macedonian immigrants in the U.S., he would most likely be considered a member of the out-group: “if someone like [me] is going to come in and be in the Macedonian community, I don't think it's going to go over that well.”

#### **4.2.2.5. Kaltrina.**

Kaltrina lives on the Albanian border with Macedonia. She also speaks English and Italian and was studying Macedonian in hopes that it would help her with employment for potential projects across the border in Macedonia. As a child, Kaltrina heard Macedonian via TV channels that were streamed from Macedonia, so her “ears were used to it.” She stated that Albanian children learn foreign languages in school and are motivated to do so. In fact, she believed that “a foreign language is a useful weapon in the struggle of life.” However,

her choice of Macedonian as a foreign language was considered unusual in her community and social network.

She began studying the language in January 2012, after finding the Macedonian Language E-Learning Center resources via a Google search. She spends an average of 3 hours per week studying Macedonian and feels that she has the time for this kind of study in her day-to-day life. She also enjoys listening to Macedonian and Serbo-Croatian music. In terms of challenges, she listed the lack of more advanced materials and of opportunities for communication. The importance of finding a course to study the language online beyond the beginner level is illustrated by the prominence of the words “course,” “online,” and “beginners” and “learn” in figure 13.

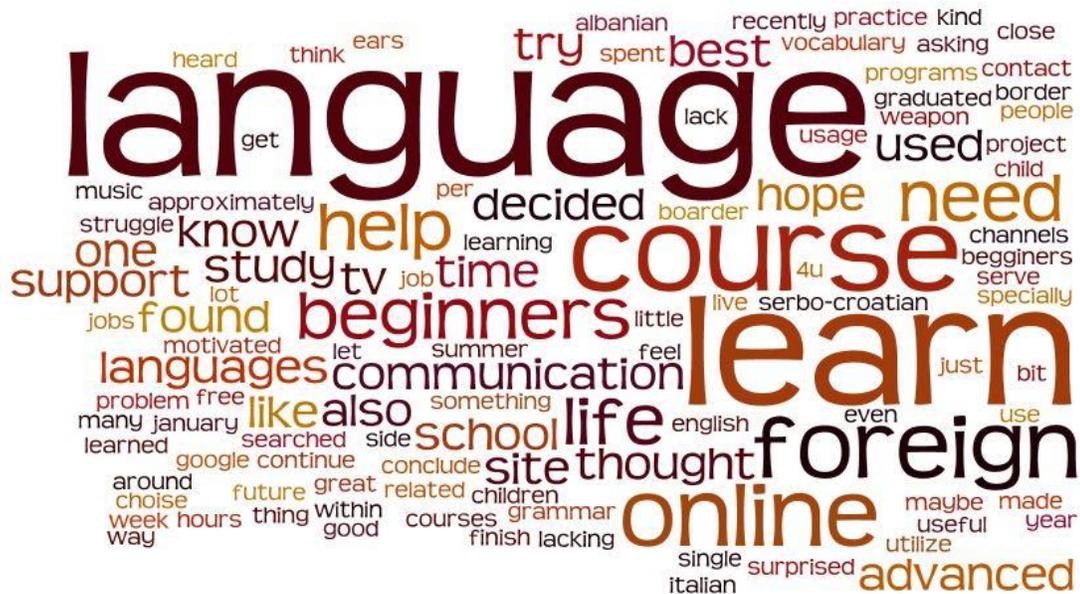


Figure 13. A word cloud representing Kaltrina's experiences.

Her critical incident chart is presented in table 10. An INOP matrix was not presented because there was not enough information to create one.

Table 10. Kaltrina's critical incident chart.

<b>Time period</b>	<b>Critical incidents</b>
As a child	She grew up with Macedonian TV channels
January 2012	She decided to study Macedonian and looked online for resources
In the future	She hopes to work on a foreign project in Macedonia

#### **4.2.2. Tutored Participants**

##### **4.2.2.1. Beatrice.**

Beatrice lives in Indiana, U.S.A., with her Macedonian-born second generation immigrant husband and their infant son. She considers herself a heritage speaker of Macedonian, being the daughter of a first-generation Macedonian immigrant father and a first-generation Latin American immigrant mother. As a child, her parents spoke English to her and to her younger sibling, but once a week she stayed with a neighbor, whose Macedonian-speaking grandmother watched her all day while her parents worked. She currently lives with her Macedonian in-laws in a small community of Macedonian immigrants, attends a Macedonian church, and has friends and co-workers of Macedonian heritage. The importance of this community in considering her learning process is evident in figure 14, where some of the relatively prominent words include “people,” “friends,” “parents,” “husband,” “church,” “cousins,” “families,” “family,” “community,” “mom,”



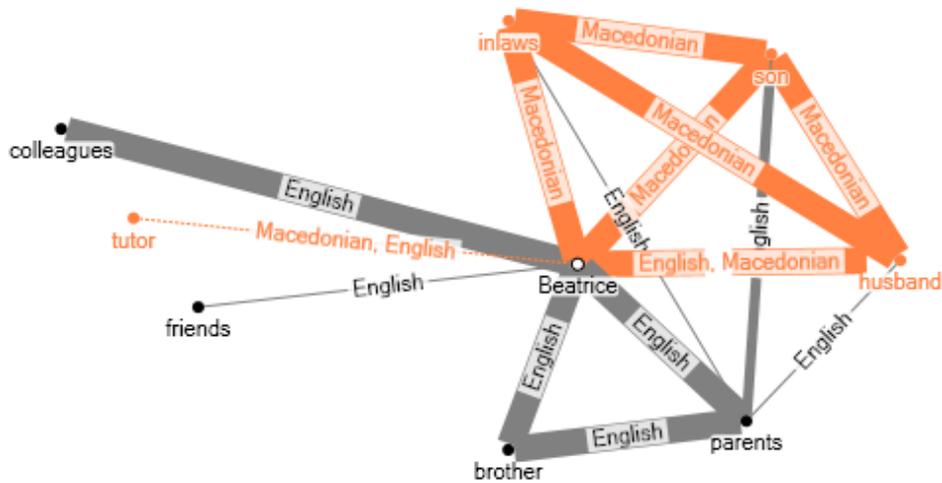


Figure 15. Beatrice's social network matrix.

Although Beatrice has plenty of opportunities to use Macedonian in her community, she felt that she needed to learn Macedonian in a more structured way outside of her community and in order to avoid judgment from members in that community about her Macedonian proficiency level. Since 2009, she has been meeting with her tutor (who is also located in the U.S.A.) online about once a week, with occasional breaks for several weeks. In addition, she has been using the online materials provided by the Macedonian Language E-Learning Center, using Google Translate on her smart phone, writing emails to Macedonian family members in Macedonia (which she did for about 5 months), and using Macedonian on Facebook. However, whenever she has tried to use Macedonian with her friends and relatives in the U.S.A., it has never lasted because “people get busy.” With her father, trying to use Macedonian becomes a highly emotionally charged issue; Beatrice perceived that this was perhaps because of his feelings of regret or insecurity about not speaking more Macedonian

to his children. In fact, Beatrice pointed out repeatedly how emotionally charged of an issue she feels language learning is in general and specifically Macedonian. In fact, she frequently described the actions “think,” “feel,” and “know” in the interview, describing how she was internalizing the impact of her environment onto her language learning; this is illustrated by the large size of these terms in figure 14. Beatrice stated that when people discover her parents’ heritage, they always ask “why don’t I know Spanish and Macedonian so I always knew it was a big deal. And why didn’t I know either, what’s wrong with me.” That’s one reason Beatrice was always interested in learning languages: “...always, meaning since I was little, [I] wanted to speak more fluently.” Beatrice’s critical incident chart is presented in table 11.

Table 11. Beatrice's critical incident chart.

<b>Time period</b>	<b>Critical incidents</b>
	Grows up in a Macedonian immigrant community, including once a week all day childcare with a friend’s Macedonian-speaking grandmother/grandparents
	For a long time, she looks for a formal educational setting but not linguistically oriented, in order to study common, everyday language but with a grammatical explanation and with an outsider to avoid judgment from the physical community
	She marries a Macedonian
2009	She finds an online tutor
2010	She moves in with Macedonian-speaking in-laws
2012	She has a son, with whom she speaks Macedonian

The first challenge Beatrice pointed out in trying to learn Macedonian was the lack of resources, especially in comparison with other languages. She also felt that the Cyrillic alphabet is a challenge, partially because she wasn’t sure if it was the best use of her time and

resources. Another challenge, which negatively impacted motivation, came from judgmental pressures of living in an ethnically Macedonian immigrant community. While people praised her aloud for her language learning efforts, there was an underlying contempt that she would have to be learning the language, rather than already being a speaker. Another challenge for maintaining Macedonian in the community came from political issues among the immigrants; one of these issues prevented someone who was interested in offering Macedonian for children through the church from doing so.

I feel like here the Macedonians aren't that supportive of each other whether it's like through business or whatever. So I don't think they would be supportive with learning the language, which completely makes no sense because it's important to everybody.

And even though she lives in a community where Macedonian is spoken, Beatrice found it difficult to maintain speaking Macedonian conversationally with her friends and relatives, simply because everyone spoke English as well and it was easier to do so. This challenge is coupled with the emotional nature of language learning to create a difficult learning environment.

When her motivation begins to wane, Beatrice turns to her husband for support, who peps her up. Her American friends are also supportive: “They're like that is so cool. They make a big deal about it, bigger than I think. And then I'm like that is pretty cool and I am actually doing a good thing.” But Beatrice stated that at the root, “the motivation is honestly always there.” In moments of frustration with speaking Macedonian, Beatrice reacts by

shutting down and becoming very quiet, which makes her depressed in the short term but encourages her to work harder in the long run. This situation prompted her advice to other learners:

...when I know something that I know the response in Macedonian I tend to still respond in English because I'm scared to actually open my mouth and say the Macedonian words. Even at home, I know how to respond to my mother-in-law in Macedonian, but I get nervous and just say it in English. And then afterwards I'm like why didn't I say that in Macedonian... So I would tell [other learners] not to do that.

Other resources that she reported would be helpful for her personally were a textbook and a more “real” course, both of which would provide externally-imposed boundaries and reference resources for her study.

#### **4.2.2.2. Constantin.**

Constantin lives in the area of Greece near the border with Macedonia, which was historically inhabited by ethnic Macedonians. The existence of this minority has been denied by the Greek government and speaking Macedonian was until very recently strictly forbidden. While his parents and grandparents speak Macedonian, they do not read or write Macedonian because of the Greek policies toward Macedonia, Macedonians, and the Macedonian language. Because there are no schools that teach Macedonian in Greece and finding local ways to study Macedonian is hard, Constantin turned to Internet resources,



Table 12. Constantin's critical incident chart.

Time period	Critical incidents
	<ul style="list-style-type: none"> <li>• Grows up with parents speaking Macedonian in an ethnic Macedonian minority community in Greece where Macedonian is forbidden to be spoken</li> </ul>
	<ul style="list-style-type: none"> <li>• No schools teach Macedonian, so difficult to learn Macedonian</li> </ul>
Age 14	He studies German, Italian, English in private and state schools
Adult	<ul style="list-style-type: none"> <li>• He travels to Germany for commercial business</li> <li>• Wife is also ethnic Macedonian, but does not speak Macedonian since it used to be forbidden</li> </ul>
Early 2012	<ul style="list-style-type: none"> <li>• He begins to study Macedonian online with a tutor from Macedonia via Skype</li> <li>• He reads newspapers and watches TV online</li> </ul>
Summer 2012	He visits Ohrid, Macedonia for a weekend

Constantin is retired, married and has two grown children who do not live with him. His wife is also of Macedonian heritage but does not speak Macedonian, although she understands a little. She is not trying to learn Macedonian because she has no time. He speaks Macedonian daily with his mother and occasionally with other ethnic Macedonians in his region. As figure 16 illustrates, Constantin's community plays a large role in his language study: prominent words include "family," "people," "mother" and "wife." Constantin's INOP social network matrix is presented in figure 17.





Table 13 continued.

Since November 2011	<ul style="list-style-type: none"> <li>• He continues to study weekly with a tutor in Negotino, also uses resources/books given out by the Peace Corps as well as Internet resources he has found</li> </ul>
	<ul style="list-style-type: none"> <li>• He also works with an NGO, where he interacts with colleagues as well as with developmentally delayed beneficiaries</li> </ul>
November 2013	He will be leaving Macedonia

Frank said that even though he lives in Macedonia, in his day-to-day life, he uses English about 75% of the time and Macedonian only 25% of the time, mostly for social pleasantries. His Macedonian colleagues in the NGO speak English pretty well and Frank reported “they find it easier to use their English than to endure my bad Macedonian. Even though I try to say things in Macedonian, they respond in English and we get by.” However, the learning-disabled population that the NGO serves does not speak English very well, so Frank has a need to speak Macedonian with the beneficiaries of his services. In order to improve his Macedonian beyond the intermediate low level (“which is just beginner, speaking simple present tense sentences”) at which he arrived at the end of the pre-service training, Frank looked for additional resources and a tutor. Several of these additional resources were physical manuals and books provided by the Peace Corps to those volunteers who wanted them and others Frank found online. He actually began to search for online materials even prior to coming to Macedonia, but was told by other volunteers that he did not need to try to get ahead since the Peace Corps provided pre-service language training that was not individualized so in effect he would not be able to benefit from it if he studied ahead.

After coming to the town where his NGO was located, he found his tutor through word of mouth. The large role that his tutor plays in Frank’s learning process is illustrated by

the relative prominence of this word in figure 18. They meet two-three times a week for an hour each time and have become quite good friends:

My tutor and his family have sort of taken me in, I'm dedo [Macedonian for grandfather] to their children. I occasionally take that family to dinner and they occasionally have me into their house for activities or for dinner and some cultural events... And holidays we've been together on.

As part of the tutoring, Frank includes exercises that are relevant to his day-to-day life. For example, on one occasion, he translated a recipe for Irish soda bread that he made for his co-workers and he used his Macedonian translation of ingredients to purchase the ingredients at the store. Because the local shopkeepers were interested in what he was doing, he even shared some of his soda bread with them, making him very popular. In fact, it is his fearlessness to enter into conversations in Macedonian with town folk that has made him pretty well known in the town. It is also evident in figure 18, where some of the more prominent words include “try,” “get,” “ask,” “find,” “go,” “going,” and “understand.” Frank’s social network matrix is presented in figure 19.

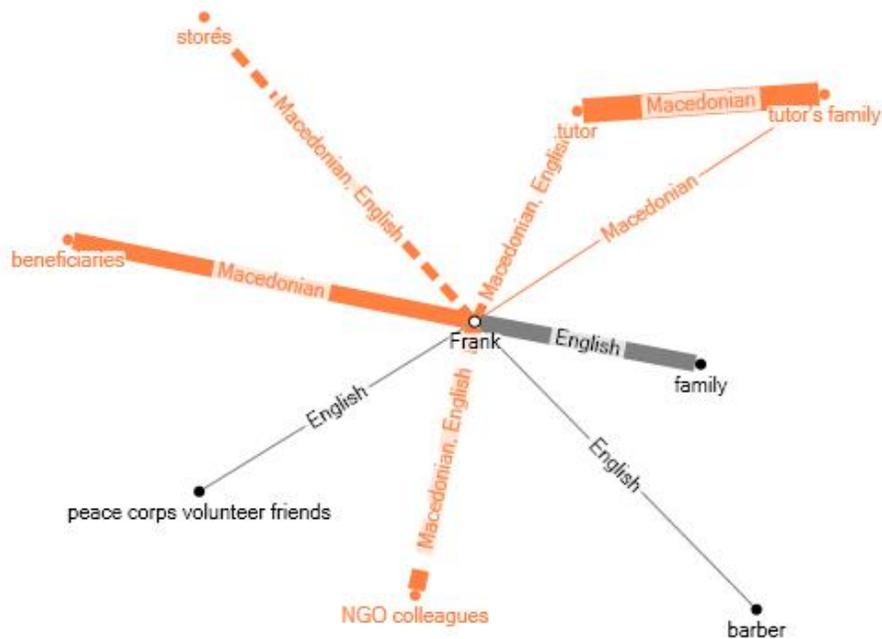


Figure 19. Frank's social network matrix.

Frank described the negotiation of the choice of language for communication thusly:

“The younger ones go right into English, the older people will struggle with me in Macedonian, partly because they don't have good English but also I keep trying to talk in Macedonian.” With the younger people, “I ask them to help me with my Macedonian but they are pretty insistent that they want to practice their English.” In fact, this lack of practice was one of the challenges that Frank reported. Other challenges were related to his perceived preferred means of study; he described himself as a visual learner. As a result, he reported difficulties with CDs and audio recordings that were not accompanied by texts that he could

follow. This may partially be connected with a hearing impairment; Frank reported wearing a hearing aid and even having trouble with some conversations in his native English.

Another challenge Frank described was with Latin transliterations of the Macedonian alphabet. For example, the Macedonian letter ш can be written several ways with Latin letters: s, sh, or š; and the first of these possibilities is also used for the Macedonian letter c which represents a different sound. Hence, it is confusing for a learner when he or she sees the Latin letter s, whether to pronounce it as Cyrillic c or ш. This practice impacts about five of the 31 letters in the Macedonian alphabet.

Since the interview, Frank reported that he has met quite a few more Macedonians as he has been traveling the country for Peace Corps business. With these new acquaintances, he reported speaking Macedonian about 60% of the time and relying on English the remainder of the time. This is a welcome increase in opportunities for interactions in Macedonian.

#### **4.2.2.4. Grace.**

Grace is a university professor who lives in the U.S. but has done research in Macedonia and is planning to continue to do research there. Her professional interest is mostly in the populations considered minorities in Macedonia, such as Turks and Albanians. Although her desire to study Macedonian is partly fueled by her research goals regarding the minority populations in Macedonia, specifically she wants to understand Macedonians' views of Turks and Albanians, and to interview the Macedonian-speaking Torbesh population. However, an underlying part of her motivation is intrinsic: “Macedonian is my choice.” She

does not get any support or assistance for studying Macedonian at her workplace and she does not use Macedonian in her day-to-day life.

Grace studied 7 languages prior to Macedonian (her native English, French, Turkish, colloquial Lebanese Arabic, Albanian, German and Persian) and considers herself a speaker of five of those languages. Therefore, Grace seems to have a good grasp of what works and what doesn't work in her language study: "I learn languages with people. And I need to find people I like. And if I don't find people I like, I won't learn the language. I knew that." She also has set ideas about what language learning means: "To me language learning is human, you have to relate to people." In addition, she exhibits self-directed behaviors when she selects the types of resources she knows will benefit her language study. For example, she described that she bought a textbook but did not like it. She then signed up for a intensive course at her university but had a bad experience with it. Not wanting to give up on her language study, she sought out a community in a nearby city where there were Macedonian speakers. She attempted to infiltrate the community of women in order to hear the language being spoken in real-life situations. Unfortunately, many of the women did not speak Macedonian because they were of Macedonian heritage. Those who did speak it often used English to accommodate their non-speaker friends. The lack of resources in her physical environment prompted Grace to look online and find the resources provided through the Macedonian Language E-Learning Center, which appealed to her. She also found a tutor (the researcher) with whom she works online. Her self-directed learning style is also evident in

some of the prominent action verbs in figure 21, “know,” “think,” “learn,” “want,” “go,” “keep,” “need,” and “used.” Her critical incident chart is provided in table 14.

Table 14. Grace's critical incident chart.

<b>Time period</b>	<b>Critical incidents</b>
	Research in Macedonia, Turkey
January 2011	<ul style="list-style-type: none"> <li>• She decides to learn Macedonian</li> <li>• She orders a textbook via Amazon.com</li> <li>• She gets another grant to go to Macedonia</li> </ul>
Summer 2011	<ul style="list-style-type: none"> <li>• She enrolls in summer intensive course</li> <li>• She begins to search for other resources</li> <li>• She finds a Bulgarian church in Indianapolis that serves a Macedonian-speaking immigrant community</li> </ul>
Late summer/fall 2011	She switches to online tutoring

Grace is married; her husband is also an academic and scholar, so he understands and is supportive of her desire to study Macedonian. Grace’s children are grown, married with children themselves, and scattered around the U.S. She also has a network of friends who live in various states around the U.S. and with whom she keeps in touch mostly by telephone. However, Grace felt that she doesn’t have “much of a social life” and is currently rarely exposed to Macedonian outside of her study. Her social network matrix is presented in figure 20.





...when I was 7 I memorized a whole bunch of French records. <quotes a song> I can remember them to this day. So, I had that kind of memory. I think most kids do. But I went to terrible, well not terrible, I went to mediocre public schools where language teaching was very poor. But my parents were good. My parents found this war bride from Liege... I used to go to see her after school and she would speak French to me. A cause de ça je peux parler Francais. Because of that I can speak French.

Later, at the university level, she learned Turkish and found it more interesting linguistically and culturally than French or German. In addition, “it was good for scholarships” and it paid for her Master’s degree. Even though she observed that “most Americans aren't interested in other languages,” she did not feel that her broader environment impacted her motivation for learning foreign languages positively or negatively.

When she gets discouraged about language study, she becomes re-motivated to study just by thinking about what she has already accomplished and how she doesn’t want to lose it but rather build on it so something greater comes out of it. Specific to Macedonian, she becomes encouraged by Macedonia’s fragile socio-political situation: “I think people should pay more attention. I really care about the Balkans. And I'm worried about Macedonia. So, that motivates me as well.”

One of the challenges about learning Macedonian that Grace focused on was the alphabet: “Some of the letters, they just... Maybe it's my eyesight now or something. They're not distinctive to me. I read really fast in English and in Macedonian I have to keep looking

at it.” As a self-professed auditory learner, Grace also pined for more learning opportunities that would favor a learner such as herself: “I just wish there were more speakers around. Again, it's easier to work on a language if you had more people to speak it.” She especially wished she knew children or old people, who didn’t care about learning English and didn’t mind repeating the same things over and over because “To learn a language you need lots of meaningful repetition.” Finally, Grace described her disorderly life as a culprit that she didn’t have more time to dedicate to her study of Macedonian.

Her advice to other learners was not to start with an intensive course and in fact not to rely on language courses in general but to “find a way to get to Macedonia.” This aligns with her previous effective learning experiences and her belief that language is an essentially social endeavor; an assertion also evident in figure 21, where “people” is one of the most prominent words.

#### **4.2.2.5. Henry.**

Henry is married to a Macedonian but resides in Canada. They have children from previous marriages who do not live with them. When Henry tries to speak Macedonian with his wife’s children, they always answer in English, so he does not use Macedonian for communication. But, he is very interested in Macedonian history and culture, so he spends some of his free time every day researching Macedonian history and watching documentaries online. Together with his wife, Aleksandra, they also watch the news on one of the Macedonian TV channels via satellite. Henry’s critical incident chart is presented in table 15.

Table 15. Henry's critical incident chart.

Time period	Critical incidents
	Meets a Macedonian woman through work, begins a relationship
2006	He starts learning Macedonian with her, gets a textbook
2007	They get married, go to a Macedonian church regularly
2008-April 2010	Preparation to go to Afghanistan, no time for Macedonian
December 2010	<ul style="list-style-type: none"> <li>• He comes back from Afghanistan and meets his wife in Macedonia for 20 days</li> <li>• He comes back to the U.S., begins to study Macedonian again but nothing structured</li> </ul>
2012	He moves from Toronto to another area of Canada where there is no Macedonian church and few Macedonians
September 2012	<ul style="list-style-type: none"> <li>• He was planning to go to Macedonia with spouse again but got deployed</li> <li>• He is hoping to make the trip to Macedonia in May 2013</li> </ul>

Henry considers Aleksandra his tutor but they do not follow a set schedule for studying Macedonian; she stated: “I don't have a plan in place.” Instead, she seizes any opportunities to point out the Macedonian counterparts to English words, phrases, and sentences. She also reported that tutoring him is a source of frustration: “He just stresses me out quickly.” Her frustration is coupled with encouragement; however, as she is his only source of support. She expressed several times how good Henry’s receptive language was, even though he has trouble with language production. Aleksandra said: “What is missing is him to speak Macedonian.” The processes of speaking, understanding, and learning words were topics that Henry and Aleksandra often came back to in the interview, as illustrated by the prominence of the words “speak,” “words,” “learn,” “understand,” “speaking,” and “learning” in figure 22.



He described himself as “stuck in that comfort zone [of speaking English]... I just haven't been able to kick myself out of it.” Henry’s social network matrix is presented in figure 23.

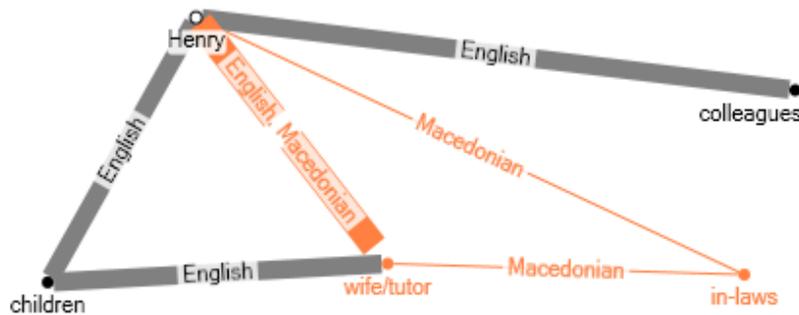


Figure 23. Henry's social network matrix.

Not being satisfied with this situation, he tries to push himself and often gets frustrated in the process. Some of that frustration came through in the interview when he tried to explain how he feels when he tries to speak Macedonian: “I really want to do this, but I haven't found a way to relax my brain enough to kick into gear.” When he gets frustrated, he gets away from the language for a few days. But in doing so, he forgets what he had learned and becomes less comfortable with the language. Therefore, his learning can be described as cyclical – more structured when he is preparing for travel to Macedonia and less focused when there is no immediate need for it. When he is studying more regularly, his receptive language improves whereas when he begins to get frustrated with it, he takes longer breaks between studying and he forgets what he has learned, thereby experiencing a setback.

Henry described learning the Cyrillic alphabet as one example of this type of cycle and as one of his biggest challenges. He also stated that he preferred studying with transliterations into the Latin alphabet. The words “alphabet,” “letters,” and “Cyrillic” are somewhat prominent in figure 22.

When describing his study habits, Henry stated that he does a lot of self-study; he goes online and looks at vocabulary using Google Translate and other Websites. If he has questions, which are usually focused on how to arrange vocabulary in a sentence, he can ask Aleksandra. But he does not like to write things down, being more of a visual and auditory learner: “I try to memorize it. I'm not too big on writing, I can tell you that.” He also tries to repeat things he hears but does not turn to Aleksandra to check if his utterances are comprehensible to a native speaker.

Henry reported that he does not have a study schedule: “Whenever I feel free to hit the button to just sort of go on there and look.” This haphazard learning approach is another of his challenges:

I don't have anything written down as a structure. I don't say every day I'm going to spend an hour doing this. Just because of the way life is in general. And to be quite honest with you, maybe I haven't made it as big a focus as it should be.

Making Macedonian study a priority is also a challenge for Henry, because life gets in the way. This is illustrated in figure 22 with the relatively prominent word “time.”

Having grown up in Canada, Henry was exposed to bilingualism in school and in his workplace. He had even studied French in school up until the age at which it was no longer obligatory. But this exposure to French did not make Henry interested in learning it: “I just didn't see a need to learn it” because English is dominant and used as a lingua franca in the military. When it came to learning Macedonian, however, even though he encounters it much less in his workplace, Henry stated: “I never wanted to learn French. But I do want to learn Macedonian.”

When asked what advice he would give to other learners, Henry again revisited his unstructured learning experience, suggesting that learners create: “that really structured time every day to dedicate to learning the new language. That's the important thing. That's the only way that's going to happen. I know that, here I am giving that advice and I'm not even following it.” In figure 22, the words “time” and “structured” demonstrate the importance of these statements.

Interestingly, Henry felt that the resources that are on the Internet are sufficient and helpful, especially with Aleksandra's help when he asks for it. But, he did advise those learners who do not have a native speaker at home to travel to Macedonia or “some place to be able to use it. It's either going to be there, or you'd have to go to some community events or church events to be able to use that language, use those skills.” The words “go,” “going,” “use,” “church,” and “immersed” all appear in figure 22, illustrating Henry's advice.



Table 16. Iris' critical incident chart.

Time period	Critical incidents
	<ul style="list-style-type: none"> <li>• Studying Russian because of a friend, they visit Brighton Beach where Russian can be heard, and used</li> <li>• Russian friend dies</li> </ul>
2007	<ul style="list-style-type: none"> <li>• She puts an ad on the Internet for a Russian tutor, a person responds who starts tutoring her in Russian on the phone</li> <li>• The tutor is an Australian-born ethnic Macedonian and she's interested in starting Macedonian but not alongside Russian, so they switch to Macedonian</li> <li>• They look for Internet resources for their study but not much there</li> <li>• Tutor becomes significant other</li> </ul>

The tutor lives in the U.S. but not in New York, so they conduct their lessons on the phone. They speak for a half an hour to an hour on weekdays, an hour and a half on Saturdays and an hour and a half on Sundays, interacting in Macedonian at least 50-60% of the time. They use English to speak about their day-to-day lives and Macedonian for topics of interest that are in the news or that consume their time (like soccer, buying property in Macedonia, etc.). In addition, if a conversation in Macedonian gets too complex, they switch to English.

The lessons are organized by the tutor and she follows along his guidelines:  
 He prepares a lesson every day that he emails to me and we do that lesson.  
 And when he went to Macedonia last year he brought back some books. So sometimes we work in those books. Right now we are reading one in Cyrillics. It's like an exercise book. So I complete the exercises and then we read them [on the phone].

They also occasionally supplement these resources with radio and YouTube clips. In addition, Iris reported that via Facebook, she is connected to her tutor's niece who lives in

Macedonia, so Iris is able to get a glimpse of the real language used in Facebook communication. Iris described the focus of the tutoring as impacted by her previous experiences in studying languages:

...I've had enough bad language learning experiences in the past, because I've always been a little too pedantic and too much interested in all the structure. I have taken a little Spanish, a little German, a little French, a little Russian and I'm not really fluent in any of them. So we both decided usually that this would be strictly conversational, not academic, not pedantic, not written so I could actually speak without prompts, notes, dictionaries etc.

She felt that the learning process they adopted was effective because "we can hold pretty intelligent detailed conversations in Macedonian and I only have to ask every so often what this word is or that word. And I would say that he understands most of what I say."

Apart from her long-distance tutor/significant other and his family, Iris does not know any other Macedonians and does not encounter Macedonian in her daily life. Her social network matrix is presented in figure 25.

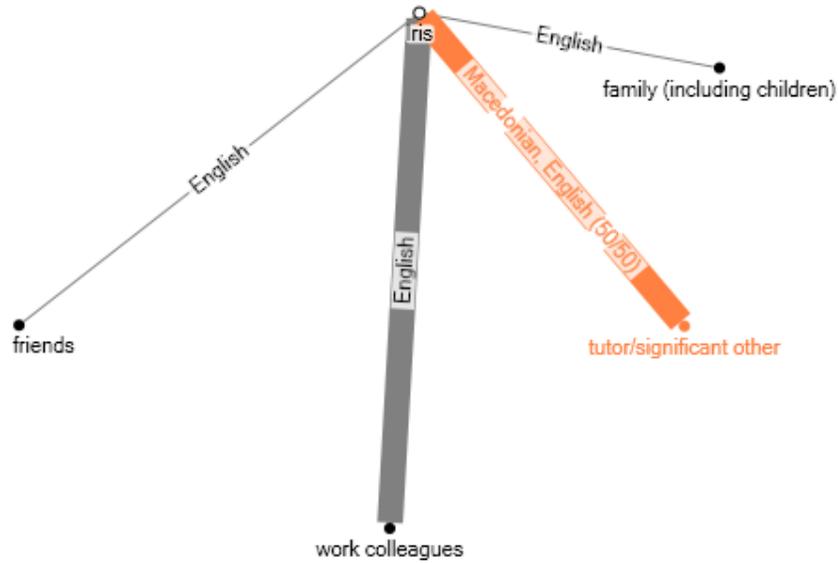


Figure 25. Iris's social network matrix.

Because of this relative isolation from a Macedonian-speaking community, Iris reported that she is excited to try out her Macedonian with other people. In order to do so, she plans to travel to Macedonia with her tutor and, after her retirement, to take a Macedonian language learning course organized by Arizona State University. She reported listening to a weekly Macedonian radio program, where she noticed that people speak very quickly. This finding did not discourage her; instead it awakened her curiosity as to how it will go when she begins to interact with other Macedonian speakers. When asked about seeking out Macedonian communities in New York, Iris said that her tutor attempted to do that during one of his visits but was unsuccessful:

it's apparently hard to find Macedonians...they don't seem to be out there in the open anywhere. We haven't actually seen any. We went to a Macedonian cultural organization in Manhattan. And I had a few communications with them. But they're very low key, they really don't have much going on.

Speaking from her experience with other immigrant groups in the U.S., Iris also showed keen awareness of in/out-group dynamics:

If my friend were here, then he kind of has the inside because he's a native. And then you can kind of tag along so that you get acceptance. It's always a little touchy to just barge in to groups that you're not in any way shape nor form related to, shall we say. It's not like my parents or somebody who were born in Macedonia. You haven't really any real reason. Maybe you're just curious or whatever, it seems kind of intrusive...

But she said that she would be open to joining an online community of learners of Macedonian: "If there were like a blog site or an online group of people who were studying Macedonian, American people who are studying Macedonian, that would be kind of nice..."

Iris' awareness of group dynamics is also evident in the reasons why she is interested in languages: her profound belief that when you travel somewhere you should speak the language of the locals. For her, "...language is power. And if you can understand or speak even a little, it makes people number one favorable towards you and it's helpful toward getting around and getting what you want." The importance of people in the language learning and maintenance is underscored in the word cloud in figure 24, where "people" and

“language” are the most prominent words, alongside the slightly less prominent “tutor,” who plays a very large role in Iris’ language learning.

The biggest barrier to learning that Iris reported was time. Interestingly, she considered online learning just as if not more time-consuming: "I don't have a lot of time to get involved with things on the computer like online." She also reported not being very comfortable with computers but currently learning more about it in a formal setting. While she considered the isolation from Macedonian speakers a challenge, she did not think of it as a barrier: "...I spent a lot of my life doing things that don't have clear-cut usefulness to them. So the lack of possible usefulness to this doesn't really bother me all that much."

Because her interest is literature, Iris also noted the lack of availability of Macedonian literary works in translation as a challenge. In addition, she said that many university libraries that would have such holdings are closed to people outside of that university, whereas many public libraries do not have any Macedonian holdings, not even a dictionary. In fact, her tutor had to translate Macedonian into Serbo-Croatian in order to then translate words into English using an English-Serbo-Croatian dictionary. Therefore, she stated that what would be most helpful for her are physical resources for studying, such as books, grammars and dictionaries. Her advice for others learning Macedonian is to make language learning a priority; otherwise it falls by the wayside.

When the researcher contacted Iris for a member check, she reported that she had stopped meeting with her tutor due to a personal rift between them. Because of the emotional impact of this event, she was taking a break from Macedonian study.

### 4.3. Between-Case Analysis

Between-case analysis can be used to summarize the results of the study, specifically addressing the research questions. Therefore, the results of this analysis are organized by research question. As a reference, the eleven participants' demographics are summarized in table 17.

Table 17. Summary of demographics of the study participants.

Name	Age	Gen-der (M/F)	Country of residence	Education level	Online language learning experience	Frequency of contact with the language	Heritage learner or not?	Using a tutor or not?
Ashley	21-30	F	Macedonia	Bachelor's	First	Daily	No	No
Beatrice	31-40	F	U.S.	Master's	First	Daily	Yes	Yes
Constantin	>61	M	Greece	High school	First	Weekly	Yes	Yes
Diana	31-40	F	Hungary	Doctoral	First	Weekly	No	No
Emma	21-30	F	Russia	Master's	Another before	Daily	No	No
Frank	>61	M	Macedonia	Doctoral	First	Daily	No	Yes
Grace	>61	F	U.S.	Doctoral	First	Almost never	No	Yes
Henry	41-50	M	Canada	High school	First	Daily	No	Yes
Iris	51-60	F	U.S.	Doctoral	First	Daily	No	Yes
John	51-60	M	U.S.	Master's	Several before	Almost never	No	No
Kaltrina	31-40	F	Albania	Master's	Another before	Monthly	No	No

#### 4.3.1. Ecologically-conceptualized Context and Impact on Learners' Motivations

The questions posed at the outset of the study were:

- How does the learners' context (ecologically conceptualized) impact informal language learning with instructional multimedia and CMC (tutoring) online?
- How are the learners' motivations for language learning impacted by this context?

**4.3.1.1. Opportunities for Macedonian study, maintenance, and use.** Turning first to a description of the participants context, two categories of participants can be distinguished: those living in Macedonian-speaking communities during the data gathering for the study (Ashley and Frank in Macedonia, Beatrice and Constantin in Macedonian communities in the diaspora) and those remaining participants who did not live near Macedonian-speaking communities. These categories impact not only the learners' microsystems, i.e. the direct social interactions in their immediate environment and mesosystems (multiple interrelated microsystems), but also the exosystem (availability of resources for study in various settings) and macrosystem (learners' sense of identity and of language study).

The microsystem of the participants living in Macedonia ought to have been full of opportunities for interacting in Macedonian. And indeed, the INOP matrices of these participants (reproduced in figure 26) were characterized by the most non-dotted lines of all the participants, meaning that Ashley and Frank used only Macedonian to interact with members in their network the most frequently of all participants. However, in the matrices, this communication was often represented with long lines and vertices (points) towards the periphery of the matrices, signifying that these interactions were casual. In addition, some of these interactions were not very frequent, as demonstrated by the thin lines representing the

nodes. Ashley reported that her only regular daily interaction solely in Macedonian was with her in-laws whereas Frank reported using solely Macedonian with some of the beneficiaries from his NGO work and with his tutor's family. In Ashley's graph, there are clearly two microsystems, one that requires communication in English and one that requires communication in Macedonian, with virtually no overlap (her husband being the only common link). In Frank's graph, the microsystems are not as clearly delineated. Both Ashley and Frank were using technology to aid their learning on a regular basis: Ashley by inputting conversation sentences into flashcard software and quizzing herself with it daily, Frank by using Internet materials and books with CDs provided by the Peace Corps. In both cases, studying and speaking Macedonian was part of the participants' daily routine.

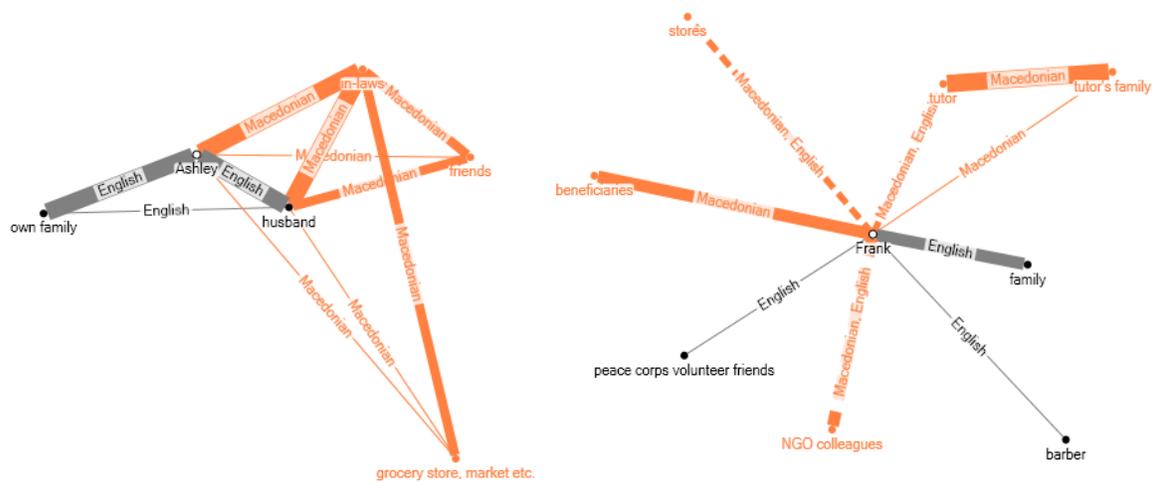


Figure 26. Comparison of INOPs of participants living in Macedonia.

The microsystems of the heritage learners of Macedonian (reproduced in figure 27) included several vertices of interrupted lines, meaning they interacted with members in their social network in more than one language, one of which was Macedonian. Whereas Constantin had no opportunity to use solely Macedonian, Beatrice had that opportunity with her in-laws. In fact, Beatrice's graph closely resembles Ashley's, especially in the delineation of microsystems for Macedonian language communication (the in-laws) and for English language communication. But, unlike Ashley, Beatrice does not rely on software for studying, instead working with a tutor via Skype and occasionally reviewing material using the MLEC tutorials. While Ashley found working with a tutor in Macedonia futile, Beatrice was happy to find a tutor outside of her Macedonian immigrant community, which she felt was too judgmental. She gave an example from her mesosystem:

I work with a Macedonian lady that she said she used to be a teacher. They have a Sunday school for kids at our church. And even she said, at our church, they weren't really supportive about that, they didn't want that. I don't know why. It's kind of political too, so maybe it has something to do with that. I feel like here the Macedonians aren't that supportive of each other whether it's like through business or whatever. So I don't think they would be supportive with learning the language. Which completely makes no sense because it's important to everybody.

The liturgy in Beatrice's church was conducted in Old Church Slavonic, as is the case in Macedonia proper, with the sermons being in Macedonian. But as the researcher found out

through observation, many people felt that using Macedonian in this realm estranged the younger generations of immigrants who did not speak the language. The choice of language in the church was an important issue for residents of Macedonian immigrant communities, as the researcher also observed in another nearby Macedonian church. Beatrice stated that even though she was not sure what language learning, if any, her church's Sunday school offered for children, she and her husband were planning on sending their son to it. These matters illustrated the relationship between the exosystem and opportunities for maintaining Macedonian.

Both Beatrice and Constantin were meeting with their tutors via Skype weekly for an hour and they spoke both their respective native language and Macedonian in their lessons. For these participants, even though speaking Macedonian was part of their daily routine in their microsystem, technology facilitated access to a tutor with whom they were able to study Macedonian at least weekly.

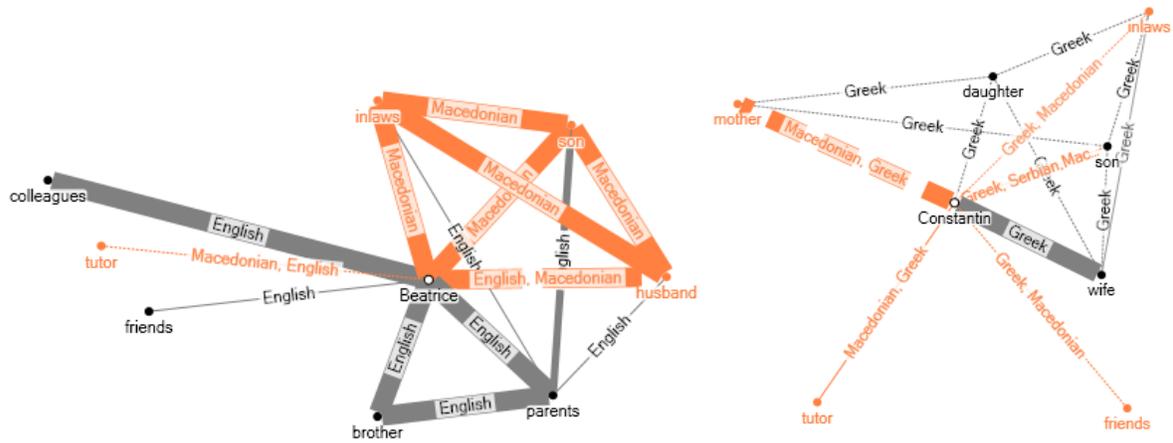


Figure 27. Comparison of INOPs of heritage speaker participants.

The microsystems of the remaining participants were marked with isolated communication in Macedonian, and always in parallel with another language. In fact, when she began studying Macedonian, Iris only knew one Macedonian: her tutor, the Australian-born son of Macedonian immigrants.

Henry represented an interesting case, since like Ashley and Beatrice, he too was married to a Macedonian and using Macedonian with his in-laws. But, not currently living in a Macedonian immigrant community, his Macedonian language speaking microsystem was much sparser than those described by Beatrice and Ashley.

John and Iris reported that they did not feel comfortable seeking out a Macedonian-speaking immigrant community because they were aware of in/out-group differences that put them at a disadvantage. On the other hand, Grace sought out such a community and felt accepted among them, but she could not visit them often and the community members often

used English for communication amongst themselves. This practice meant that Grace was not able to improve her Macedonian as much as she would have liked. Diana also sought out a Macedonian community by traveling to Macedonia and attending language learning seminars; she felt her experiences with Macedonians in Macedonia were positive. Emma sought out a virtual community, first befriending a Macedonian online through a mutual Facebook friend, and then building on that relationship during subsequent visits to Macedonia, where she expanded the microsystem of people with whom she communicated in Macedonian. For Diana and Emma, studying Macedonian was a priority. For Diana, it was a daily activity, whereas for Emma a near-daily one. They both used online technology to facilitate this learning, in combination with print resources like textbooks (Diana) and dictionaries (Emma). For Grace and Iris, studying Macedonian was a leisurely activity. For Iris it was a daily activity, whereas for Grace it was a semiweekly one. Both of them used technology (phone, email, Skype) to communicate with their long-distance tutors. For Henry, language learning was a haphazard activity; whenever he had time and the desire to do so, he used technology to facilitate language study by looking up words and phrases.

John and Kaltrina stood out as study participants because they reported no two-way communication with Macedonian speakers. They did not have tutors and were only hearing and reading Macedonian, not producing it in conversation on a regular basis. Therefore, they did not participate in Macedonian-speaking microsystems and relied on resources in their exosystems instead. John used technology (online newspapers, MLEC resources) daily to

provide him with opportunities to study and maintain the language. Kaltrina studied Macedonian with the MLEC materials about 3 hours a week.

Turning to opportunities in the exosystem, only three of the participants had at one time studied Macedonian through formal means: Diana through seminars in Macedonia, Frank through a 10-week Peace Corps pre-service training in Macedonia, and Grace through an intensive summer course at her U.S. university. While Diana reported that the seminars had a positive impact on her language learning, Grace's experience was "horrid." She elaborated: "...the teacher was just a terrible teacher. He told me the fifth week of class he knew I didn't like his language." Frank also criticized the peace corps language training because it did not incorporate any elements of Macedonian culture. The training aimed to get participants to a level where they could just get by with Macedonian, and then learners were expected to hire tutors to continue their training as they live in small communities throughout Macedonia. Frank stated that at the end of the program,

my expressive language ... was much better than my receptive language. If I went to town and asked questions, I couldn't understand the answers anyway! Or people would say something back such as "What are you doing here?" I had no idea what they asked.

The disconnect between learning the language and learning about the culture was illustrated in Ashley's case to an even greater extent. The informal language learning resources Ashley used to study also did not prepare her for life in Macedonia, particularly for dealing with certain cultural expectations and practices. For example, Ashley's husband

described that when Ashley shops at the market, "as soon as she opens her mouth, the price goes double." This result is one of the effects of in/out-group mentality, coupled with the desire to make as much money as possible from a particular sale and the belief that foreigners have more money than locals. Where the materials she was using for language study failed, her husband jumped in, trying to prepare her. But even then, Ashley stated "there are a lot of things in Macedonian culture that I wasn't prepared for. ... So that was kind of confusing me." She tried to relate the behaviors she was encountering to her own experiences in the US as a macrosystem and with her family of Italian ancestry as a microsystem, and ended up frustrated by her perception of Macedonians being very hospitable one moment and then uncultured and impolite the next. Her husband, as a member of the in-group tried to protect her by warning her not to speak to "random people in the streets. Cause he says it's the Balkans and it's not really safe. And I'm American and I don't know..." Therefore, even for Ashley, the opportunities to interact in Macedonian were mostly limited to her in-laws and their family and friends.

One impact of the technology in the Russian exosystem on language use was described by Emma and focused on the use of written language in texting using the Cyrillic vs. the Latin alphabets. The exosystem, via mobile phone providers, endorsed texting in Latin, which is not the standard alphabet for Macedonian or Russian. Namely, texts in Cyrillic take twice as many characters as those same texts transliterated in the Latin alphabet, effectively making one text message in Latin transliteration count as two (and therefore

doubly as expensive) in the native Cyrillic alphabet. This effect limits opportunities for representing Macedonian with Cyrillic.

**4.3.1.2. Motivation and support for studying Macedonian.** Finding themselves limited in opportunities for studying Macedonian and for interaction in Macedonian did not impact the participants' motivation to study Macedonian. Those living in Macedonia reported being motivated by their Macedonian micro- and mesosystems. For example, Ashley stated: "I am motivated every time I have to step out of the house and speak to somebody... A conversation with a complete stranger will motivate me to study."

Those who had significant others who were Macedonian relied on them for encouragement. For example, Iris' tutor and significant other was "very encouraging," Henry considered his wife his tutor and Ashley said that her husband and family helped her with things like shopping at the bazaar. Beatrice also relied on help from her husband, stating that when she gets down on herself and wants to forget about studying Macedonian, "he'll try to pep me up." Beatrice's American friends also "make a big deal about it," which helps her realize that she is "actually doing a good thing."

But these and the other participants are at the core - self-motivated learners. For example, Ashley stated that people in her micro- and mesosystems "don't care if I learn or not...I only continue because I know it's good for me." This outcome was perhaps because Ashley was studying the standard language but living in a town where a dialect quite different from the standard was spoken. Frank stated that being self-motivated is just "my way of studying anything. I just get up in the morning and say 'Today I will'." Discussing

motivational help for language study from her parents, Emma stated: “Macedonian happened when I was an adult, so it’s my choice.” The sentiment that Macedonian is one’s own choice was also echoed by Grace, mentioning the lack of help from her professional and personal micro- and mesosystems. Similarly, Iris stated that her children "are accustomed to the fact that most of their childhood I was studying something, so this is just something else that I'm studying;" the lack of immediate usefulness of studying Macedonian did not bother her. This self-motivation may be a necessity when choosing to study a less commonly taught language, such as Macedonian, since the extrinsic resources in the learners’ macrosystems are non-existent.

More than half of the participants reported multiple reasons for studying Macedonian, as shown in the table below. For some of the participants, like Ashley, Diana, and Emma, the reasons changed over time. For example, Ashley first became interested for integrative reasons, but after she married her Macedonian husband, she was motivated by emotional reasons, and finally when she moved to Macedonia, by instrumental reasons. For Emma, the choice to study Macedonian was a confluence of factors, such as being of Yugoslavian heritage, meeting Macedonians at an international music festival, and becoming close friends with a Macedonian online.

Table 18. Participants' motivation for studying Macedonian.

<b>Name</b>	<b>Instrumental reasons</b>	<b>Integrative reasons</b>	<b>Emotional reasons</b>
Ashley	"one of my motivations for learning Macedonian ... was originally to find a job. I	"So that was my motivation because there's a large population of Balkan individuals	"I fell in love. My boyfriend was Macedonian. And I don't

Table 18 continued.

	wanted to work while I was here. And all the jobs at the embassy and pretty much any job I could think of would require me to be fluent. I did want to study for that, for work purposes."	that work over in the Middle East and I wanted to understand what they were saying." "In Afghanistan, they're talking about me, I better learn what they're saying. That's actually a good reason why I'm studying too. ... Cause my husband, he already said he would speak to all of our children in Macedonian. And I was like oh, I better know it, I better learn it."	know, I figured if I was going to date him, I needed to speak his language. At least understand what he was saying" to his friends, because he also speaks English.
Beatrice		"I've always, meaning since I was little, wanted to speak more fluently."	"I think [language learning] in general [is an asset], because I was always and still am always asked why don't I know Spanish and Macedonian so I always knew it was a big deal. And why didn't I know either, what's wrong with me."
Constantin		"Because I am Macedonian. ...my grandmother and all of them, the whole family, we are a big family, here in Greece..., there are a lot of Macedonians. All of them speak Macedonian."	"Because I like it."
Diana	"And the other reason why I'm starting this PhD studies because I'm hoping to get a job there to teach. Because with my Tibetan studies is no any possibility here. Maybe I will have a possibility in Skopje from next September."		"I was traveling alone and I found the whole country and the people so friendly and warm that I fell in love with the whole country and the people and their mentality and so on. I didn't know ... why I am interested at Macedonian language studies because I don't have any relatives or nobody speaking around me in my family this language."
Emma		"I have some roots in Yugoslavia but I don't really know where my ancestors live because we have no connection. But I knew that for a long time but I wasn't interested. I mean that I didn't pay much attention to that before I met my friend. We met through the Internet, so she is my Internet friend. That's how I started to learn Macedonian because I like the language a lot. And I started to learn things about Macedonia and listen to [a famous Macedonian pop singer]. So I started to learn the language because I liked it very very much and I felt the	

Table 18 continued.

		connection with my roots, that I have some blood in me, probably some Macedonian blood, or at least Yugoslavian blood. So it made it for me very interesting to know and to learn. Mostly because of the language, because the language is very beautiful."	
Frank	"My interest in learning Macedonian obviously is practical right now, well it's obvious, a functional ability to work here in this country. I probably would have never picked up Macedonian to learn just as a language on its own."		
Grace	"I wanted to study Macedonian because I wanted to do research in Macedonia."	"I don't think I will be a deeply fluent speaker of Macedonian, but I want to be able to use it, I want to be able to relate to people, I want to be able to ask people questions and understand people's viewpoints there more. That's important."	" To me language has always fascinated me. Because the language is the key to the culture, to religions, to art, to other ways of seeing the world. As a linguist, the patterns are fantastic. Why be stuck with English?" "I really care about the Balkans. And I'm worried about Macedonia. So, that motivates me as well."
Henry		"I guess the easiest thing is so we can communicate. Just to be able to understand a little bit of the conversations that were going around me. Mostly when you go to church, in those type of social groups."	
Iris	"I was interested in literature and wanted to broaden my horizons so I could have more to offer when I went to teach again."	"...so that when I go to Macedonia I can actually talk to people."	
John			"My concern with the civil rights issue and the Macedonian people. I think they should have the right to use their own language and that really enhances the culture."
Kaltrina	"foreign project job" across the border		"I like a lot the Macedonian music."
Total	6	7	8

One of the participants, John, recounted that as an outsider in the Macedonian community in Greece, he had a difficult time finding anyone who would use Macedonian with him because of the macrosystem's influence: the Greek state does not recognize the existence of Macedonia as a state, its culture, its people, nor its language. He provided a counterexample of integrative reasons for studying Macedonian by stating:

Most people that I ran into in Greece who were of Macedonian ancestry would refuse to speak to me in the language and were very hesitant to engage me in any information about Macedonian culture in Greece precisely because I was a foreigner. There was a climate of fear about Macedonia... One store they refused to serve me unless I spoke Greek even though I knew they spoke Macedonian. These were people with whom I was friendly. And the neighbors told me they speak Macedonian but they refused to do it with me.

**4.3.1.3. Motivation and support for language study in general.** All of the participants in the study had studied other foreign languages prior to Macedonian. In order to uncover the impact of the ecologically-conceptualized context on the study of Macedonian, the researcher also asked the participants about their study of other languages. The reasons that the participants were interested in language study in general reflected influences from the microsystem, mesosystem, exosystem, and macrosystem.

**4.3.1.3.1. *Microsystem and mesosystem.*** In the microsystem, several participants reported being influenced by their grandparents' and parents' speaking of languages other than the participants' native tongue. Grace's grandfather used to greet her in various

languages; she later realized he only knew a few words in each of those languages. Diana's greatgrandmother and grandparents spoke an old Slovakian language, different from the Hungarian that was Diana's first language. Later, when Diana learned Russian in school, she realized that with her Russian she could crack the code of the language her great-grandmother and grandmother used for their gossip, which was encouraging for her language study. Several participants discussed the support for learning foreign languages that came from their parents. For example, Emma's parents: "realized that English was very important for ... international communication, so they encouraged me to learn it and they were very interested in American, practically in everything American: in music and in culture." She is now applying the skills she learned from studying English to learn Macedonian; for example, she listens to Macedonian music. Upon discovering Grace's fascination with languages and the poor language instruction at her school, Grace's parents found her a tutor to assist with her French study.

Frank, Grace, Ashley, and Henry also exhibited language learning impacts of the mesosystem. Frank stated: "I grew up in a bilingual community. I grew up in the Amish country in PA, the Pennsylvania Dutch country. And they didn't speak German, they spoke PA Dutch ... I thought I would study German and I would be ok. I realized I was learning a separate language. I grew up with Amish and Mennonite kids and I knew a lot their dialect but it didn't help me at all studying German." He later lived in multicultural Philadelphia:

I've worked with many different ... ethnic groups and subcultures. In cities like Philadelphia, my gosh, you could go into some neighborhoods and

nobody speaks English. Vietnamese, Italian. There are some Italian neighborhoods that they don't even speak English. Polish neighborhoods in Philadelphia. It's pretty neat in that way. 'Cause then you can go and taste all the different food.

Growing up in multicultural Detroit, Grace stated that she encountered many immigrant groups: "I used to go downtown to the library behind Hudson's department store where they had all the foreign books. ... At the Detroit institute of arts you could take a bus tour that lasted all day to go to icon makers." That multicultural environment is something she misses in the city where she now lives. One interesting interplay of the microsystem and mesosystem is found in Ashley's story. Ashley's grandmother was from San Marino, Italy, but she never used Italian other than for swearing, female genitalia, and a few other common words like soup. Still, this early exposure to certain words in Italian (which Ashley did not realize were Italian) had a negative impact on Ashley in school, which illustrates the impact of the mesosystem. For example, when Ashley used some of her grandmother's vocabulary in conversation with her friends at school, she realized all her friends used different terminology:

I felt like I was so stupid! That I was saying it wrong my whole life, and that wasn't the right way to say it! So it was actually very traumatic! All the kids would be like that's not what it's called! Why are you calling it that? You know, kids, being cruel. I was like, oh it's my fault.

Even though that experience was traumatic, Ashley grew up wanting to learn a foreign language. In contrast, Henry grew up around and works with bilingual Canadian French/English speakers, but he observed that the two languages did not have the same status: "If they want to get something done or get a question answered, they're going to speak English. They're not going to speak French. They'll speak French within their own little groups, but that's it." And that is one reason he was never interested in learning French.

**4.3.1.3.2. Exosystem.** Turning to the realm of the exosystem, one prominent positive influence for language learning was that of the media, i.e. radio and television programming. In the U.S., Grace reported that she became interested in languages because of the radio program Voice of the Nations; it was a fun game for her to try to guess what languages she was hearing. She also began learning French by listening to records (LPs) and memorizing the songs. Similarly, Emma listened to American music and memorized English vocabulary that way. She also played computer games, and even though her parents only spoke German, she was the best English student in her class at school. In Albania, Kaltrina reported that she heard Macedonian TV programs when she was a child even though they did not have many channels in other languages. Similarly, Diana, who grew up in Hungary, reported that she became interested in German because of a children's television program which she watched every Saturday. No one else in her village spoke German, but at the age of 6, she found it interesting to watch the language teaching TV program. She said: "I decided somehow - not very seriously like an adult - but I kn[e]w there is a program for me every Saturday morning and I s[a]t down and learn[ed] gutten tag gutten morgen" [good day, good morning]. Diana

stated that she thought that Hungarians are not as good at learning languages as others in the Balkans because foreign movies are dubbed in Hungarian, rather than shown with the original audio and translated subtitles, as they are for example in Macedonia and Romania.

Compulsory language teaching in school, another part of the exosystem, was reported to have a negative impact for the participants' motivation to learn languages. In fact, most participants reported having had compulsory language training, but followed that with the statement that it either did not impact their later language study or impacted it negatively. In Belarus, Emma described that compulsory English study was not a positive experience for most students, considering herself an exception: the students "have no skills and they forget the language when they leave school." She saw the same impact in Russia, where she is currently residing and teaching English. She blamed this outcome on poor schools and a monolingual mentality among adults. In Canada, where Henry studied compulsory French in school until grade 8, he stated he was not interested in continuing learning it after he was no longer required: "Even though it was something I was always exposed to around the military, I just didn't see a need to learn it." Similarly, Diana described studying compulsory Russian in Hungary for 11 years, but since the system wasn't very good and there was no practical use for Russian in Hungarian society, no one liked learning it. She even called the endeavor "stupid," undoubtedly reflecting a historical perspective of a negative influence of communist Russia in Hungary.

The futility of language study was also brought up by Ashley for studying Spanish in the U.S. Her negative experiences in school were because of the communicative competence

approach:

Spanish was the first one that's forced into you like schools in the United States. I bought tapes when I was 16. I was determined to learn it... We had classes in high school. I was so shy and they made us do these presentations in front of the class. I couldn't do them. I couldn't do public speaking in front of the class. And I dropped the Spanish class and I never got to learn Spanish. I never got to learn a foreign language in high school because of that, because of public speaking. My cheeks would get all red and I would be so nervous.

She also stated that in college, the focus was no longer on public speaking and thus, she completed the first two levels of Spanish successfully. However, she still did not see the use in it: "But you never really speak Spanish in the states on a day to day basis so I really didn't see the need to fluently study it." Grace also commented on the poor language teaching programs in public schools in the US. In college, majoring in a less commonly taught language provided Grace with a scholarship to study towards a Master's Degree for free, so that impact of educational funds was a positive one for her choice to focus on Turkish.

In Albania, Kaltrina stated, "the school children are motivated to learn foreign languages and they also learn in school." In Greece, Constantin reported that students study foreign languages in public and private schools by choice; language study is not compulsory. But Macedonian is not offered and the study of Macedonian is generally not endorsed.

Hence, he studied several other foreign languages before he began studying Macedonian, despite of his Macedonian heritage.

**4.3.1.3.3. *Macrosystem.*** Finally, almost all of the participants expressed cultural views about language study, exhibiting impacts of the macrosystem. Most of the participants came from the U.S., so many of the comments were about American culture. Frank believed that "American culture doesn't value differences" but he fought this notion in his own life:

I always tried with... in all of the places I worked, that people I worked with, colleagues as well as clients, one of my maxims has always been to understand differences, to appreciate the differences, to celebrate other peoples' cultures with them. Not just to say you're different than me but to understand them.

Similarly, Grace stated "most Americans aren't interested in other languages." Even though Grace and Beatrice both lived in large multicultural cities at least at some point during their lives, Beatrice's take on American interest in foreign languages was quite the opposite of Grace's. Beatrice stated: "I think most Americans want to speak another language. Or they think it's a good thing." She also described the expectations of people that if your heritage is of a particular ethnicity, you should speak that language. This expectation had a negative impact on Beatrice because she felt judged that she did not speak her parents' native languages. Iris agreed with Grace and Frank about Americans in general, but thought of herself as an exception:

I believe firmly if you go somewhere, you should probably speak the

language. ... I suppose I'm a very controlling person but language is power. And if you can understand or speak even a little, it makes people number one favorable towards you and it's helpful toward getting around and getting what you want. ... I don't think I'm a mainstream American, so it's hard to say. But that is my belief.

Like Iris, Kaltrina, who is from Albania, stated that "A foreign language is a useful weapon in the struggle of life," putting this statement in quotations. Constantin, who is from Greece, also believed it is good to learn and speak all languages, but this may be a newer development, since John recounted that during his residency in Greece in the 1970s and 1980s, people both admired and were suspicious of multilingual speakers. On the other hand, Diana, who is from Hungary, and Emma, who resides in Russia, stated that those two nations do not really speak foreign languages. But, this situation may be changing as both participants also stated that the young urban generations are beginning to speak English. Emma thought this change was due to the rise in prominence of the Internet, showing an impact of technology and globalization on culture and the macrosystem.

#### **4.3.2. Locating and Using Technology for Language Learning**

A second set of questions that guided the study included:

- How do learners of Macedonian locate resources for Macedonian study?
- How do they use technology for language learning that makes it possible for them to fit language learning into the totality of their lives?
- Are their processes effective?

The answers to these questions lie in the realm of the exosystem. Answering the first question, all of the participants stated that they turned to online means to look for resources for their study and five specifically mentioned searching Google. For example, Kaltrina wrote: "I decided to learn Macedonian so, just as a thought, I searched on Google and found this site which I try to get best of it." Similarly, Emma said: "I think it took me probably a couple of days just to find everything that is on the Internet or that I can find. But then from time to time I try to use Google and to search for some more, so sometimes I do that."

Ashley, one of the participants who did not specifically mention Google, stated that she first looked for Macedonian offerings on the Website of famous language learning software Rosetta Stone and in her company's software library. Coming up empty-handed, she "just started doing research online for any software." Iris, one of the tutored participants, stated that she relied on her tutor to find resources for their study but that he had used the Internet to find them.

All of the participants were using technology in their studies. In addition to the Macedonian Language E-learning Center Website, which was the site of the study, participants reported using the following technology:

- Websites which teach Macedonian grammar and vocabulary (used by all participants)
- Websites which stream Macedonian content, such as news, movies, music, and e-textbooks from Macedonia (used by seven participants)
- Online dictionaries and Google translate (used by five participants)
- Facebook (used by four participants)

- Skype (used by three of the tutored participants and one untutored participant)
- Macedonian language learning software (used by two participants)
- Radio (two participants reported listening to a Macedonian radio show out of New York)
- Online flashcards, such as Anki (<http://ankisrs.net>) (used by two tutored participants)
- Phone (used by one tutored participant)
- CDs (accompanying textbooks, used by one tutored participant)

It was interesting to note that all the participants used various resources in their studies, supplementing certain resources with others. Only one participant, Henry, stated that the resources that were in existence were sufficient. All of the other participants felt that more resources were needed.

The answers to the question how participants use resources they have found to study proved to be highly individualized, from the highly structured to the highly unstructured, with most of the participants describing a regular schedule or set of activities they engage in as part of their learning process. Among the untutored participants, the time spent studying Macedonian varied from an average of 5-6 hours a day to several hours per week.

For example, Diana stated that she was currently focusing on her study of Macedonian, so she was spending an average of 5-6 hours a day engaging with Macedonian cultural products and artifacts, including reading online newspapers, researching topics in Macedonian, interacting on Facebook, listening to music on YouTube as well as doing exercises and reading textbooks. When working with texts and exercises, she first reads the

text, trying to understand the grammar and then does exercises, checking her answers in the back of the book. When engaging with cultural products and artifacts, Diana makes notes on new vocabulary that she then memorizes. She sometimes relies on her daughter to quiz her giving her Macedonian-Hungarian pairs. Although she just recently started working with materials on the MLEC Website, she praised interactive online exercises and games (like Crossword puzzles) where she can immediately check the accuracy of her answers as more useful than just reading a book by herself.

Ashley described that she studied for 30 minutes every day, diligently inputting phrases from a Macedonian phrase book into computer flashcard software, which she then used to quiz herself. She explained that she arrived at this schedule by trial and error: "I was doing an hour a day and it was too much, I just got overwhelmed. 30 minutes a day, no more no less. .... I can fit it in and I feel like it's not too overwhelming." However, living in Macedonia, she was also communicating daily with her non-English-speaking in-laws, with others in the community and listening to the language through television programming. She thought that on average she was learning one to two words a day just by living in Macedonia. She described her learning process as constantly ongoing: "...it's not like there's ever any end to it. There's never an end... Every day you learn something new . Oh I thought I knew more. No - learning more, every day."

John reported that he tries to spend about 15 minutes a day working on each language that he is learning and maintaining. He explained that, for Macedonian, that routine amounts to going through one MLEC lesson per week, which he then repeats. In addition, he reads

online newspapers regularly and listens to the Saturday morning Macedonian radio program most every week.

Kaltrina described spending approximately 3 hours per week on the MLEC Website since January 2012. She reported trying to learn grammar and practicing vocabulary.

Emma reported she did not have a regular schedule for studying Macedonian because of her irregular work schedule, which impacted her free time and availability to study, and because her inspiration to study was not constant. She stated:

I have waves of learning Macedonian. Sometimes I'm very inspired and then I do it every day... Sometimes I don't have time and I don't do anything for a month. But then I start again and I try to do it every day or every second day.

When she does study, she explained her two approaches. The first is fitting in studying during the time she travels for work on the metro, which can sometimes take up to four or five hours a day. In this case, when she is not grading her own students' papers, she listens to Macedonian music on her ipod and creates sentences in her notebook using words from a Macedonian-English dictionary. She uses each word from the dictionary in two to three sentences. In this way, she is learning new vocabulary and practicing using it. When she cannot figure out how to use a word, she relies on her Macedonian-speaking long-distance friends for assistance. The second approach she uses in the evenings after work, at home, where she has access to a computer and the Internet. When she has the energy to do it, she studies grammar using the MLEC tutorials and writes notes for herself in her notebook:

“So I take a page in my notebook and I write the topic and then I put down the grammar rules and the examples. For me it's easier, because visual memory helps a lot. And when you write probably something again it helps remember.” She began taking notes after she realized that just reading and doing the exercises online was not enough. Therefore, she regularly blends technology with pen and paper to facilitate her language learning processes and fit them into her busy schedule.

Most of the tutored learners described a regular schedule of meetings with their tutor. For example, Iris reported talking to her tutor/significant other every day on the phone, Frank met with his tutor two to three times a week for an hour in person, whereas Beatrice, Constantin, and Grace met with their tutor about once a week via Skype. Beatrice and Grace are tutored by the researcher.

On the other side of the spectrum, Henry reported not having any structured meeting times with his tutor/wife; instead, she just introduced vocabulary and grammar as teaching moments arose in their life together. She gave an example: “...when we're cooking, we're cooking. OK - it's grav [beans], piperka [pepper]. I don't have a plan in place.” Henry reported that when he does study, he usually does so by himself on the couch and only asks his tutor/wife for help if he has a question. He browses the Internet, memorizes vocabulary, and uses a Macedonian textbook with accompanying Internet exercises, as his schedule allows. He also reported that he was more inspired to study after he came back from Macedonia, but again not on a regular schedule:

Whenever I feel free to hit the button to just sort of go on there and look. If I was going to use Google translate, if I wanted to know how to say what a teacup is in Macedonian. I'll put in teacup and see what it spits out.

Although he does not have a regular schedule and doesn't write anything down, Henry reported that he is progressing when he spends more time studying and regressing when he does not.

But lack of structure does not work for everyone. For example, Ashley reported that she tried working with a tutor for a couple of months but her tutor was not very structured, leaving Ashley convinced her she could do better studying by herself, using software. Similarly, Frank reported that a previous peace corps volunteer would not recommend a tutor to him because that tutor did not have anything written down or prepared and the tutoring was all aural. Instead, Frank found a more structured tutor to work with.

Frank was meeting his tutor for two to three hours per week in person, since they were both living in Macedonia. At first, Frank's tutor had a hard curriculum, but Frank insisted that they blend cultural instruction along with the language learning, so they began blending conversation with written lessons and using challenges from Frank's daily life as the basis of assignments. For example, Frank would write about a problem he had the previous day and they would discuss it in their lesson. They would also sometimes in their lessons translate documents from English into Macedonian that Frank needed for work. Between lessons, they communicate in Macedonian via email, which provided Frank with an opportunity to "probably more comfortably make all my mistakes. I have trouble in person

making mistakes.” Sometimes Frank’s tutor brought his non-English-speaking wife for Frank to converse with, which was helpful for Frank because it forced him to converse without the aid of English. On his own, Frank was using the MLEC tutorials, which he had written out on a piece of paper and was checking off as he went through them. In addition, Frank also learned by creating with his tutor a scripted dialogue and then going out into the community to locate and purchase items for various projects; using flashcards to review vocabulary when traveling by bus to the country's capital, Skopje; and taking pictures of local posters which he then decoded and translated.

One of the tutored participants, Iris, met with her tutor/significant other daily on the telephone but also communicated via email. They had both agreed that the tutoring sessions would be “strictly conversational, not academic, not pedantic, not written so [Iris] could actually speak without prompts, notes, dictionaries etc.” Every day, her tutor emailed her a lesson that he prepared and they followed that lesson during 50-60% of their meeting time. Sometimes the lessons came from books that the tutor got in Macedonia, other times they included exercises which Iris would complete before the lesson and they would read during the lesson, whereas other times that time was spent in conversation in Macedonian. The remainder of their tutoring time they would talk about other topics in English.

Similarly focused on conversation were Grace's tutoring sessions via Skype. Grace met with her tutor for an hour a week, always on the same day of the week and at the same time. Describing her learning process, she stated that every week she writes (and rewrites) sentences using vocabulary that she and her tutor discussed in their conversational Skype

session and that relates to the activities she did that week. The sentences relate to her life, which she felt was important: "The fact that the vocabulary relates to my life. That's very important." She looks forward to the positive experience of working with her tutor each week, which helps her motivation: "I think learning has to be that way. If it gets a burden then there's something wrong."

Beatrice also met with her tutor weekly for about an hour via Skype but because of her changing work schedule, she rarely met on the same day and time each week. Like Iris and Grace, she too spent most of the meeting time practicing conversation in Macedonian with her tutor. This approach was what she felt was effective about the tutoring: having "someone that would strictly speak Macedonian to me for an hour, without breaking down to English. Even though I still sometimes shut down, I am much much more confident. I mean I still have things to work on for sure, but there are situations where now I am much more confident." After the meeting, Beatrice described spending the hour after tutoring going over what was discussed during the tutoring.

The third participant tutored via Skype was Constantin. In addition to his weekly tutoring, he also fit into his schedule watching several Macedonian online news broadcasts every day, as well as studying with monthly online Macedonian lessons from a local Greek newspaper and the MLEC tutorials. Being retired, he did not find it difficult to fit studying Macedonian into his day-to-day life.

All of the participants reported that the resources and learning approaches they were using were effective. One participant, Diana, reported that a technology she was relying on,

watching movies with Macedonian subtitles via the Internet, was no longer available to her because the Website ceased to exist. When this happened, she turned to other online resources.

**4.3.2.1. Self-directedness and self-regulation.** In discussing their approaches to finding and using resources for language learning, all of the participants exhibited various behaviors of self-directedness and self-regulation. Specifically, many participants were looking for resources that met their needs and learning styles, presupposing an awareness of needs and learning styles; they were structuring their learning based on previous experiences; they were evaluating their learning process and progress; and managing their time to include language learning in their busy lives.

Most participants expressed an awareness of their learning preferences, as shown in the table below.

Table 19. Participants' self-assessed learning preferences.

Participant	Tutored (T)/ Untutored (U)	Evidence of self-awareness of learning preferences
Ashley	U	"I knew myself enough to know that if it was just a book, I wouldn't be able to learn anything. I need to hear it, I need to see it." "I like to finish things."
Beatrice	T	"I know I'm more of a book learner, like classroom type setting."
Diana	U	"I am a very hard person and I will study very hard."
Emma	U	"I'm the kind of person and teacher I like everything to be in order. That's why grammar for me is very important." "I understand that I need communication. If I really want to speak Macedonian, I need a lot of practice."
Frank	T	"I'm a real visual learner." "That's just my way of studying anything. I just get up in the morning and say Today I will."
Grace	T	"I know how I've learned other languages." "I'm an auditory learner."

Table 19 continued.

Henry	T	"I try to memorize it. I'm not too big on writing, I can tell you that."
Iris	T	"I'm probably not the goodest, so I need a patient tutor." "I'm pretty adept to adjusting to a different kind of grammatical structure." "I know myself, that if you get too hung up with books, you won't really learn anything. You need to really just kind of focus in on one thing, and one approach and not look for too many alternatives."
John	U	"Things repeated again keeps the grammatical forms straight in your mind and increases your vocabulary."

Understanding one's learning preferences went hand-in-hand with understanding how to maintain self-motivation, especially in difficult times. Several participants admitted to acknowledging feelings of frustration about learning or using Macedonian (Ashley, Beatrice, Frank, and Henry) and they dealt with it differently. For example, Frank exhibited the strategy of self-talk when learning: "So Friday I said, I just told myself, it's a three day weekend. You're going to sit down. You have nothing else to do except your laundry. Do the laundry and sit down and do it." Henry exhibited the strategy of time-lapse by shutting off the computer and choosing to "take a couple of days off before I do it again... or more." Beatrice also stated that she shut down in situations when she was expected to use the language, but that in the long-term those frustrating situations motivated her to study more. Similarly, Ashley was also motivated by situations of language use in which she got "stumped" and then became mad at herself.

Many participants were also using the resources they found based on their previous knowledge/experience with language learning. For example, Iris stated that she and her Macedonian tutor focused on conversation and not grammar because of poor outcomes from previous language learning experiences that focused too much on language structure.

Similarly, Frank stated that he was comparing his Macedonian classes to previous experiences learning German (which included much more culture) and concluded that the Peace Corps' approach to teaching Macedonian was deficient due to the lack of connections to culture.

Furthermore, some participants were monitoring their learning process and when they were not satisfied with the results, they sought out a remedy. For example, Ashley enlisted the help of a tutor but then stopped using that resource when she realized that the tutor was not effective. Similarly, Grace signed up for an intensive language learning course but continued to seek other resources on the side (such as a nearby community of Macedonian immigrants and online resources) because she evaluated the course/instructor as negatively impacting her motivation.

Many participants were also aware of their daily constraints on the time they had to dedicate to their language study. For example, Beatrice and Emma both pointed out that their irregular schedules impact the steadiness of their learning process and discussed how the resources they were using were flexible in order to accommodate their irregular schedules. And, as was already mentioned, most of the participants described having set up a regular schedule or set of activities as part of their learning process, illustrating that they do planning in order to fit in language study into their day-to-day lives.

### **4.3.3. Challenges**

The learners in the study described what challenges they saw for studying Macedonian. The most frequently reported challenge was lack of opportunities for

communication i.e. situations in which the learners could practice their spoken language. This challenge was specifically mentioned by Ashley, Beatrice, Diana, Frank, Grace, Henry, John, and Kaltrina. Two of these participants, Ashley and Frank, were residing in Macedonia but for different reasons still felt they were not getting enough practice: Ashley because the town where she was living spoke a different dialect than the standard Macedonian and Frank because in many spheres of his life people accommodated his English. For Beatrice, John and Iris, these opportunities were limited due to their own timidity or nervousness about being judged and/or about infiltrating an ethnic community. Emma also discussed this timidity though not specifically applying it to her own study of Macedonian. The lack of opportunity for using Macedonian was experienced even by tutored learners, such as Beatrice, Grace and Iris, because it was sometimes easier to express oneself in English even with their respective tutors. Emma also captured this sentiment when describing her correspondence with Macedonian friends: "Because if you want to say something, then it's more convenient to speak in English, as we both understand it perfectly. But probably I have to take another step and start using, talking only Macedonian."

Table 20. Participants' challenges with lack of oral practice.

<b>Participant</b>	<b>Tutored (T)/ Untutored (U)</b>	<b>Evidence of lack of conversational practice as a challenge</b>
Ashley	U	"I really was completely unmotivated to study because nobody speaks Macedonian at all."
Beatrice	T	Even in the Macedonian immigrant community, Macedonians are not supportive of learning Macedonian.
Diana	U	"I'm missing...every day conversation... the native environment."
Emma	U	"I understand that I need communication. If I really want to speak Macedonian, I need a lot of practice."

Table 20 continued.

Frank	T	Asked whether he gets enough practice speaking Macedonian, he responded "No, I do not. And I get really angry with myself: my language progress is so slow."
Grace	T	"I don't have people here and that's a problem... If you have a full cultural context, it's easier."
Henry	T	Henry's wife: "...what is missing is him to speak Macedonian."; Henry: "limited in opportunities to branch out to a Macedonian community."
Iris	T	"And that kind of bothers me, that I'm a little bit timid about actually speaking to other people, outside of speaking to [my tutor]."
John	U	"No Macedonian speakers" that he's run into in the area although he did mention at least one such run-in.
Kaltrina	U	"The problem is only the usage of the language learned as the communication is lacking."

Another frequently reported challenge was not having enough time, structured time, or peaceful time to focus on language learning. Beatrice, Constantin, Emma, Grace, Henry, Iris, and John all discussed this challenge. For example, Henry stated that life and procrastination get in the way of his learning because he has not made language study his priority, whereas Constantin named lack of time as the reason why his wife is not learning Macedonian. John stated: "You need nine hours a week of linguistic study to get a language. And I just don't have the time. But I'm always still glad to pick up what I can."

Five of the participants (Beatrice, Emma, Frank, Henry, and Iris) named the alphabet as a challenge. However, each of the participants thought of it as a challenge for different reasons. For example, for Iris the challenge was connected to technology: she reported that she used to have a computer on which she didn't know how to switch to different alphabets, but now she has a newer computer so it's not as much of an issue. For Beatrice, it was a challenge of focus, specifically whether to make learning the alphabet a priority or whether it is something she would never need living in her Macedonian immigrant community in the

U.S. Henry reported that the Cyrillic alphabet was daunting but transliterating it into Latin letters was helpful. In contrast, for Emma and Frank it was the transliteration that presented the challenge. Emma, whose native Belorussian is written in a Cyrillic alphabet similar to Macedonian, stated:

it was a big frustration for me because I couldn't understand when I read in Latin letters. I couldn't figure out any meaning... because I didn't know the rules, you have some different rules for transliteration as we use for Russian. So it was very difficult for me to read.

Similarly, Frank stated: "That stuff throws me, when they do things with Latin alphabet and I don't realize." Lastly, Frank also reported some difficulty with technology and the transliterated alphabet, naming 'false friends' i.e. letters that look the same but represent different sounds in the two languages: "I do it all the time, I hit the wrong keys for u and y, and for v and b."

More than a third of the participants reported that lack of study materials is a challenge (Beatrice, Diana, John, and Emma). Diana and Emma reported being unable to find materials, books, and dictionaries, and John specifically focused on lack of grammatical information. Beatrice and Ashley discussed a lack of materials for Macedonian relative to those available for other languages. For example, Beatrice stated: "there aren't a lot of resources like there are for other languages, where you could listen to things on your headphones or watch things on TV or movies or something."

Participants who are married to Macedonians reported experiencing some frustration with their significant other regarding their language learning. Ashley and Henry reported that their respective partners get frustrated when having to repeat certain things in Macedonian over and over. This frustration translated into discouragement for the learners themselves.

For example, Henry stated:

We try to start conversations, but then I get stuck for words because my mind... I don't know whether I try too ha... I think it's probably because I try too hard. I really want to do this, but I haven't found a way to relax my brain enough to kick into gear.

Beatrice described her frustration thusly: "My husband would always be like 'You're making it too difficult, why do you even need to know that?' But I felt like I couldn't learn the language if I didn't know why it was said that way."

The remainder of the challenges reported were specific to each participant. For example, Ashley, who lived in a Macedonian town where the natives speak a dialect that is quite dissimilar from the literary language, stated in frustration: "I am studying Macedonian and they speak [the town dialect]." She further stated that the only time she hears the standard language that she is studying is when she watches television. However, two other learners (Beatrice and Henry) who had encountered dialects in their respective learning communities did not report as big an impact of the existence of dialects on their language learning experiences.

Another challenge reported by Ashley was using language learning software that does

not have images; this was a challenge because she is a visual learner. Emma, who considers traveling to Macedonia as a great way to learn the language, reported that one challenge to doing that is finances. Frank, who learned Macedonian in an intensive course, reported that as a result of learning scripted dialogues, he was unable to understand when native speakers deviated from the scripted dialogues he was taught. Frank also stated that building vocabulary was a challenge because he was not learning vocabulary as quickly as he wanted. Lastly, some of the participants mentioned certain grammatical notions, like for example the reduplication of pronouns, as challenging (Ashley and Frank).

#### **4.3.4. Opportunities.**

Of all the reported challenges, the most frequently mentioned one was lack of opportunities to practice the language. Some participants suggested how to achieve more communication with native speakers: through scholarships for people in Macedonia to come spend time in communities in the U.S. (Grace) and through opportunities to travel to Macedonia to experience the native environment (Diana, Emma).

Since this challenge can also potentially be addressed through application of Internet technology to create a virtual learning community, the participants' willingness to engage in such a community was also queried. Only one of the participants who were asked this question, Ashley, did not feel such a community would be beneficial; in her case because Ashley was living in Macedonia. Another participant, Grace, was not sure whether she would take advantage of such a resource. The remaining participants gave overwhelmingly positive responses. These responses, summarized in the table below, suggest that a creating a virtual

language learning community is an opportunity for technology and the Internet to help learners of Macedonian.

Table 21. Participants' statements about virtual language learning communities.

<b>Participant</b>	<b>Tutored (T)/ Untutored (U)</b>	<b>Evidence of willingness to participate in a virtual language learning community</b>
Ashley	U	"When I have a native speaker here in Macedonia, if I'm going to get a tutor, I'm going to get one face to face, why would I do it online? It's not like I have some demanding career that time is crunching me. I would go to the class if I wanted to do it face to face."
Beatrice	T	"I tried to find that online actually. That's a good idea."
Diana	U	"It would be very useful [to have an online community to practice]... One on one would be more useful for study ... [in a group] is maybe just for enjoy[ment]."
Emma	U	"Yes, that would be helpful."
Frank	T	Frank reported he would take advantage of it; his preference would be communicating with native speakers first and a mix of natives and learners second.
Grace	T	"I don't know, I might. I'd have to know who they were, if it was going to last, it would make a difference who they were. I'd rather have someone in my environment, ... somebody in person."
Iris	T	" If there were like a blog site or an online group of people who were studying Macedonian, American people who are studying Macedonian, that would be kind of nice to be with a group and I know there are groups like that in other languages, like French or Italian or whatever. But I don't know I haven't really searched anything out in Macedonian, but that would be kind of nice."

Other needs mentioned by the participants included:

- more formal classes with grading and a set of expectations (Beatrice)
- more help organizing the learning (Beatrice)
- more advanced courses/resources (Kaltrina)
- more resources: books, grammars and dictionaries (Beatrice, Iris), newspapers, liturgy, bible in Macedonian (John), a tutor (Diana)

- more visuals in language learning resources (Frank and Ashley)
- more online exercises and puzzles (Emma and Frank), including online exercises that keep track of the score and pinpoint exactly your mistakes rather than marking something wrong and leaving you to find out what was wrong about your answer by comparing with the correct answer (Frank)

Many of these needs represent opportunities for technological solutions.

## **5. DISCUSSION AND CONCLUSIONS**

### **5.0. Introduction**

Due to the methodology, study design and philosophy that guided them, it is difficult to capture the complexity of the findings of this study in a summary. Extrapolating from multifaceted real-life experiences of the phenomenon of language learning is difficult because each learner's experiences and factors that impacted those experiences played a role in their life story; to leave them out in the interpretation of data just to be able to draw a conclusion seems to imply an artificially imposed simplification of the phenomenon itself. Therefore, the true value of the present research is in the learners' stories in all their intricacies, which were presented in the results section. This section, then, serves as a guide to organizing some common aspects of those infinitely more complex human stories.

The organization of this chapter parallels the research questions asked at the outset of the study. Therefore, the first section presents conclusions on the ecologically conceptualized context for informal language study, illuminating some common threads among the conclusions about learners' motivations and persistence with studying Macedonian and their context. The second section summarizes the use of technology for language study, thereby focusing on part of the interface of the learners with the context, specifically how the learners shaped their learning. The third section reviews the challenges reported and opportunities for technology to meet those challenges, and in that illuminates another part of the learner-context interface. The fourth section extrapolates from the previous sections to present the impact of these findings on instructional design for informal language learning with

technology. Throughout these sections, the results of the study are situated in the landscape of previous research on the topics. The final section of the chapter highlights opportunities for further research.

### **5.1. Ecologically-conceptualized Context and Impact on Learners' Motivations**

In answering the research question how the learners' context (ecologically conceptualized) impacts language learning, the data showed that the impact was different for foreign language study in general vis-a-vis studying Macedonian. All of the participants in the study had studied other foreign languages prior to Macedonian. One difference between their study of other foreign languages and Macedonian was that the former was often in formal settings, such as in schools, whereas they studied Macedonian informally.

Additionally, the participants' first experiences with studying foreign languages were with the more commonly taught (and heard) languages, such as English, Spanish, German, and French, and then they began to study Macedonian. Another difference between these experiences is in the impact from the context, specifically the support they found in their ecosystem for learning and using the languages. This topic is explored further in the following two sections.

#### **5.1.1. Learners' Motivations for Language Study in General**

For the most part, the participants reported that their previous foreign language learning experiences were facilitated by elements of the microsystem (for example, parents or grandparents who could speak a foreign language or say a few words in a foreign language), mesosystem (for example, growing up in bilingual or multicultural communities),

and exosystem (for example, radio or TV programs using or teaching foreign languages). The positive motivational effects of support from parents and significant others for studying English have been previously reported by Shoib and Dörnyei (2005). But in the present study, there were also elements of the ecosystem that did not positively impact foreign language learning. One of the participants who grew up in the U.S. with an Italian-immigrant grandmother stated that her use of the Italian lexicon she had learned from her grandmother was detrimental to her social relationships at school, showing that the effects of the mesosystem were not always encouraging for foreign language study. However, she still reported that she always wanted to learn a foreign language, demonstrating that the end result, despite some stressful experiences, was still positive for encouraging interest in foreign language study. Another example of negative impact on language learning was provided by several participants whose exosystem required foreign language study in school; they reported the negative or non-existent effects of this policy on people's desire and ability to learn foreign languages. Furthermore, it was interesting that more than two thirds of the participants reported that their own culture exhibited macrosystemic views that did not support foreign language study.

The encouraging and hindering impacts of context (Styer, 2007), family (Palfreyman, 2006), and socialization in communities of practice (Smith, 2002; Wiklund, 2002) on language learning have previously been noted by other researchers. But none of those studies compared the perceptions of learners from various countries about the effects of various elements of the foreign language learning ecosystem, such as, for example, compulsory

language learning in schools. While Shoaib and Dörnyei (2005) found that compulsory English teaching exerted a mostly neutral influence on motivation for studying it, the current study found that more than two thirds of the learners expressed that their culture did not encourage foreign language learning, regardless of whether foreign language teaching was compulsory in school or not. But this discouraging environment did not deter the learners themselves from pursuing language learning, at least in part because of support from the microsystem and the learners' own self-motivated personality.

### **5.1.2. Learners' Motivations for Macedonian Language Study**

Describing their ecological context for studying Macedonian, the participants painted a picture of an even less helpful context than the one they described for language study in general. The two heritage-speaker-participants had heard their parents/grandparents speaking Macedonian, but the remaining participants had not. Furthermore, while participants in general reported that their families were supportive of their study, more than two thirds of the participants did not consider their family as a resource for studying Macedonian. In addition, half of the participants could not practice their language with their families, friends, co-workers, or other members of their micro- and mesosystems and the remaining participants reported not being able to practice enough. In fact, all of the participants listed this lack of opportunities for practicing the language as their biggest challenge in learning Macedonian. This conclusion takes on an even greater significance when taking into consideration a pilot questionnaire with the same population, which showed that many learners of Macedonian are motivated by one strong bond, such as would exist with a spouse or a significant other

(Belamaric Wilsey, 2013). These learners are choosing to study Macedonian because of one strong social bond but are then not able to find a way to practice the language anywhere, including within the realm that inspired them to learn it in the first place.

More than two thirds of the participants had access to Macedonian media programming, whether through watching local TV channels (Ashley and Frank, who lived in Macedonia), satellite channels (Beatrice, Henry), U.S. radio programming in Macedonian (Iris and John), or via the Internet (Constantin, Diana, John), so these participants found support for their study in this element of the exosystem. While there were opportunities for formal study available to four of the participants, only one (Diana) was taking advantage of these opportunities at the time of the data collection and she did not feel that her needs as a learner were being met through the instruction. For all of the other participants (Ashley, Beatrice, and Frank), these opportunities were inconvenient. One participant (Grace) reported a poor prior instructional experience in an intensive Macedonian university course and another (Ashley) reported a poor prior experience with a face-to-face tutor. To generalize, for the most part, the participants did not have access to positive learning experiences in their exosystems except with Internet resources and capabilities.

In summary, most of the participants in the study reported support for their language learning/maintenance in their microsystem (although even this support was very limited) and through Internet resources in their exosystem, whereas their macrosystem exerted a negative impact upon their language study. This conclusion is illustrated in each case in table 22, which summarizes the resources for language study/learning (LL) and use/maintenance

described by the participants at each level of the ecologically-conceptualized context. The names of participants that were living in Macedonian immigrant communities outside of Macedonia during the study are marked with \*, whereas the names of those living in Macedonia during the study are marked with \*\*. The remaining participants lived in isolated places where there was little or no contact with native Macedonians.

Table 22. Summary of participants' support for Macedonian study and use in their ecosystem.

<b>Participant</b>	<b>Microsystem</b>	<b>Mesosystems</b>	<b>Exosystem</b>	<b>Macrosystem</b>
Ashley**	Macedonian husband and in-laws but a different dialect than standard	Macedonian-speaking community	Flashcard and other LL software; books; local TV but not dialect	Macedonian "closed" culture, no materials to prepare for dialect, cultural differences
Beatrice*	Macedonian husband, in-laws, father, and tutor	Macedonian-speaking immigrant community including church but too judgmental re:LL	Possible language maintenance via church offerings; online tutoring	Community unsupportive and judgmental about LL/maintenance
Constantin*	ethnic Macedonian ancestry/family, tutor	Macedonian-speaking immigrant community	Technology facilitates meeting with tutor	Greek government forbids Macedonian LL/use, negates existence of Macedonian minority
Diana	Macedonian friend, teacher, classmates	Teachers met while studying in Macedonia	Course offerings in Macedonia ; online resources (satellite TV, movies, YouTube, Websites)	-
Emma	Macedonian friend and boyfriend	Friends of friends met while visiting Macedonia	SMSs in Cyrillic twice as expensive as in Latin letters; online resources	Macedonian music as a learning resource
Frank**	Macedonian tutor and tutor's family, colleagues, beneficiaries	Macedonian-speaking community	Local TV; Internet resources; Peace Corps-provided training and materials but not learning about culture	no materials to prepare for cultural differences; Macedonian speakers accommodate non-natives by switching to English

Table 22 continued.

Grace	Macedonian tutor	Sought out/ found a nearby Macedonian-speaking immigrant community	Bad experience in an intensive LL class; technology facilitates meeting with tutor	Macedonian speakers accommodate non-natives by switching to English
Henry	Macedonian wife and in-laws	-	Internet dictionaries, satellite TV, YouTube, Websites	-
Iris	Macedonian tutor/significant other	- (and not comfortable to seek out a community)	Technology facilitates meeting with tutor	-
John	-	- (and not comfortable to seek out a community)	Technology/Internet	Greek government forbids Macedonian language study/use, therefore ethnic Macedonian community is distrustful of interested foreigners
Kaltrina	-	-	Technology (MLEC tutorials), satellite TV, music	-

Since, as was already mentioned, language learning is impacted by context (Styer, 2007), social life (Horwitz, 1995) and social networks (Kurata, 2011; Palfreyman, 2006, 2011; Smith, 2002; Wiklund, 2002) among other factors, the learning ecology that the participants described challenged them as learners of Macedonian. While Smith (2002) and Wiklund (2002) concluded that large, dense, heterogeneous networks promote language acquisition, participants in the current study showed that language can be (and is) studied even in the absence of such networks, although the learners perceived the lack of such networks/opportunities as a hindrance to their study. Taking these findings about the LCTL learning ecology into consideration, the learners' persistence with Macedonian language learning attests to their high level of self-motivation, which was previously posited by

Henderson (1974) and Dickinson (1987) for self-instructed language learners of more commonly taught languages.

In terms of reasons for studying Macedonian, the study found that most participants were guided by multiple reasons and for a third of the participants, their reasons changed over time. This picture presents a more in-depth look at a previous survey with the same population (Belamaric Wilsey, 2013), which concluded that online language learners of Macedonian using the MLEC materials are chiefly motivated by integrative factors but to a slightly lesser extent also by integrative and emotional factors. The participant interviews in the present study revealed that all three types of reasons (instrumental, integrative, and emotional) were relatively equally distributed (6 instances of instrumental reasons, 7 of integrative, and 8 of emotional), when taking into consideration their co-existence for some participants and their change because of life events for other participants. These results are not surprising since motivation is considered a dynamic process that fluctuates over time and because of impact from life events (Dickinson, 1987; Shoaib & Dörnyei, 2005).

## **5.2. Locating and Using Technology for Language Learning**

Turning to the learners' interface with the context, the researcher posed the question how participants locate and use technology for language learning. All of the participants stated that they turned to online searches for resources and to Internet resources for study, which may be at least in part due to the recruitment site (Macedonian Language E-Learning Center, MLEC) for the study. However, all of the participants were also supplementing the MLEC-provided online resources with other technology (Websites which stream

Macedonian content, such as news, movies, music, and e-textbooks from Macedonia, other Websites which explain Macedonian grammar and vocabulary, online dictionaries and Google translate, Facebook, Skype, radio, and online flashcards), pointing to a potential normalization (Bax, 2003) of online technologies for LCTL study. In fact, a few of the participants stated that they had either just discovered the center's materials and had not had a chance to look at and use them extensively or they had used them in the past but not recently. The finding that the learners believed they needed supplementary resources echoes White's (1999), Bidlake's (2009), and Nielson's (2011) studies with adults studying foreign languages using self-instruction and CALL materials.

However, unlike Nielson's learners, who evaluated their study as unsuccessful, the participants in this study stated that their learning approaches and resources were effective. Perhaps the difference between the two groups of students was the setting - in Nielson's study, the learners were employees studying for their jobs and took formal assessments, whereas in the present study, Macedonian study was not sanctioned by the employer for all of the learners except for one (the peace corps volunteer). The difference in settings is reflected in expectations learners have for their progress in studying, and may ultimately also impact their satisfaction with the resources they find and use. In addition, participants in Bidlake's and Nielson's studies reported technological problems, whereas participants in the current study did not. Technological problems as deterrents in learning with technologies have been widely reported in the literature.

The types of materials learners were supplementing with were different in previous studies. Bidlake (2009) reported that the learners (of Spanish and French) reported needing other, often printed, supplementary and complementary resources, and Nielson (2011) reported that the learners (of different languages including LCTLs) sought out both online and print materials as well as support from native speakers. Similarly, White (1999) reported that adults in a self-instructed distance education language learning program sought out both material and social resources as a way to address the inherent ambiguity they found in self-instruction materials. Palfreyman (2006) reported that English as a Foreign Language (EFL) learners preferred using entertaining and/or electronic resources, and Kalaja et al. (2011) compared EFL learners of English, who used a variety of material and social resources outside of the classroom (TV, movies, radio, Internet, books, magazines, other people), with learners of Swedish, who only occasionally used material resources and rarely used social resources. The participants in the present study were more like the learners in Nielson's study and the EFL learners in Kalaja et al.'s study because they sought out online, print, as well as human resources. However, because of the lack of print materials available for Macedonian, they ended up supplementing and complementing mostly with other online resources and tutors. It is interesting that four out of the six tutored participants found their tutor online and did not ask the tutor to provide any formal credentials about their language proficiency or pedagogical background. This finding is in contrast to Palfreyman's (2006) report that learners chose their social resources based on perceived proficiency in the target language and accessibility to the learner.

The availability and acceptance of technology, part of the mesosystem, was not mentioned by most participants as an issue, also pointing to normalization of technology (Bax, 2003). The participants did not report problems negotiating the transitions in and out of the virtual and physical environment. This is even more peculiar considering that many of the participants did not use the Macedonian they were learning in their daily physical non-technology-mediated interactions at all (John, Iris) or used it very little (Diana, Ashley, Emma, Grace, Constantin, Henry), i.e. there was a disconnect between what they were learning through technology and what they were experiencing in their physical space. This finding resembles Doughty and Long's (2003) supposition that many language learning students in distance education settings are not exposed to the target language outside the courses. At the same time, heritage speakers are an exception, as mentioned by Johnson and Hall (2007), and so are learners residing in the country where the target language is spoken, but it needs to be acknowledged that even some of these groups of learners may not have access to the language variant being studied (standard language vs. dialect or regional variant). However, the two heritage speakers in this study did not report that a focus on the standard language in the language learning resources made them feel less important or at a disadvantage as heritage speakers of a dialect (as in Johnson & Hall, 2007), but instead they were happy to find any materials. This discrepancy between the dialect spoken in the physical space and the standard language learned in the virtual space was only a source of frustration for one of the participants in the study who was residing in northern Macedonia.

Like McCann (2004), this study also found evidence that the reasons/motivation for engaging in learning and the learners' social roles also impacted the decisions the learners made about engaging in and continuing their learning. For example, when Ashley was living in Macedonia, her social role as a housewife allowed her ample time to study Macedonian but left her unfulfilled. Moving to the U.S., she was able to change her social role but the integrative reasons she was studying Macedonian were no longer present, so she stopped her study. However, the present study found to an even greater extent that relationships with people in the microsystem shaped the learning process and the interface of the learners with the context. For example, Grace reported her poor experience in an intensive Macedonian language university classroom because of the inexperience and negative attitude of the teacher of the course. This "dreadful" experience, as she described it, propelled her to find other online and social resources that would help her maintain a positive attitude towards learning the language and therefore help her stay motivated.

Jones (1998) concluded that self-instruction can be beneficial only at intermediate or higher levels of language learning, i.e. after the lexico-grammatical core has been learned. This finding was also confirmed with students in an associate's degree program in Hong Kong learning English online through a distance education program where they interacted with a teacher (Ng et al., 2006). In the present study, only one participant, Kaltrina, was a true beginner using online materials to begin her study and she did not comment on the effectiveness of the materials. Nearly all the other participants in the current study reported that the materials they were using were effective.

### **5.2.1. Self-directedness and Self-regulation**

As shown by McCann (2004) for adults in Web-based distance education courses, one way that they structure their learning environment is based on previous knowledge and experience, including with online resources and online study. In the present study, all the participants had previous experiences with language study, but an overwhelming majority (9 participants) had not previously studied a foreign language online. This finding validates a previous study with the same population (Belamaric Wilsey, 2013). Because most of the learners did not have previous knowledge and experiences of online language study to rely on, they referred to experiences with offline language study in determining what their needs and learning preferences were. Without being prompted by the researcher, almost all participants talked about their learning preferences and whether certain resources they were using were a good fit, illustrating that this metacognitive knowledge was on the forefront of their minds.

Another basis for structuring the learning environment that McCann (2004) found was the amount of self-directedness. While the present study did not measure the amount of self-directedness, almost all the participants exhibited self-directed behaviors by employing strategies such as evaluating metacognitive knowledge about themselves as learners and about their preferred learning strategies; actively controlling the learning situation by seeking out resources that are a good fit and continuing to search for supplementary resources, including tutoring; employing self-talk, time lapse, review/repetition, and plod-on as strategies when dealing with frustration (Ulitsky, 2000; White, 1999); and creating a routine

(Hsu, Ching, Mathews, & Carr-Chelman, 2009). In fact, most of the participants described a regular schedule or set of activities they engaged in as part of their learning process and for several participants, the regularity of the process was a way to fit learning into their busy lives. Evidence that having a set time and place for studying helped learners' persist with their study was also found by Umino (2005) with Japanese learners of English using self-study TV/radio materials. Among the untutored participants, the time spent studying Macedonian varied from an average of 5-6 hours a day to several hours per week. The ranges for meeting with tutors were from every day (Iris), to two-three times a week (Frank), once a week (Beatrice, Grace, Constantin), and occasionally (Henry, whose tutor was also his spouse but with whom he did not have structured tutoring sessions).

The learners also described that they took breaks when life got in the way. For example, Ashley stated: "I had a little break. After the wedding I definitely did not study for 4-5 months..." Similar breaks were described by Beatrice due to vacations and the birth of her child, by Grace due to personal and professional trips, by Diana to focus on her dissertation, by Emma and Iris when their relationship with the significant other became rocky, and by Henry when his military service took priority.

To summarize, as expected, the participants exhibited self-directedness and self-regulation when locating resources, including technology, for studying Macedonian, as well as when dealing with the frustrations of language learning and use in general. However, one surprising finding was that most of the learners did not have specific goals and objectives on which they based their searches for and use of materials and technology. While many of the

participants had a general end goal in mind, such as for example speaking Macedonian fluently, most had not broken down that goal into smaller, attainable objectives that would pave the path to their end goal and had not put a time-constraint regarding attaining that goal. Instead, they were relying on the scarce materials they had found to guide them in the short term. This reliance on existing materials means that designers of materials have an even greater responsibility to be explicit about the goals and objectives on which the resources are based to facilitate the learners' understanding of a path towards a goal.

### **5.3. Challenges and Opportunities**

When the participants in the study were asked about their challenges in studying Macedonian, they most frequently reported a lack of opportunities for communication i.e. situations in which they could practice their spoken language. This statement was reported even among those participants who were living in Macedonia. Therefore, the finding echoes Kurata's (2011) conclusions with learners of Japanese. In the case of one of the two participants residing in Macedonia, this result was not due to lack of access, investment, or claiming the right to speak (van Lier, 2004), but because the learner was a native English speaker: his interlocutors thought it would be more beneficial for them to practice English with a native English speaker than struggle through a conversation in Macedonian with a Macedonian learner. This illustrates influences of the macrosystem – while the Macedonian language is considered an important marker of Macedonian identity, it is not as imbued with social capital as speaking English. This conclusion may be generalized to many less commonly taught languages. In the case of the second participant residing in Macedonia, she

had opportunities to practice the dialect of the community where she was residing, but that was not the standard Macedonian language she was learning, which effectively meant she could not practice the language she was learning. People she was interacting with would not accommodate her by switching to English or standard Macedonian, either because they couldn't or wouldn't. If the former were the case, as Ashley seemed to believe with her mother-in-law, it illustrates that this gap between the standard language and the dialects should be addressed through increased awareness and instruction. If the latter were the case, it would illustrate the interlocutors' perception of her as an outsider who doesn't need to participate in their conversations and therefore was being denied access.

In either case, one solution to the challenge of lack of opportunities for communication would be membership in a physical or virtual learning community. Like learners of Russian in Bown's (2009) study, several participants in this study had sought out physical communities of Macedonian speakers where they could practice their language. However, these communities did not contain enough opportunities for target language practice. In addition, for other participants, the process of stepping out into a physical Macedonian-speaking community was wrought with anxiety. Therefore, the researcher queried the participants' willingness to partake in a virtual learning community and a majority of the respondents believed that virtual learning communities would be helpful. This overwhelming willingness to communicate with other learners online was previously reported in a pilot questionnaire with the same population (Belamaric Wilsey, 2013). However, it is not clear whether the participants would voluntarily take advantage of such

communities if they were available, since previous research illuminated the problems of optional virtual communities for adult learners (Ros i Sole & Hopkins, 2007; Styer, 2007).

This remains a suggested area of further research.

Another challenge frequently reported by the participants was not having enough time, structured time, or peaceful time to focus on language learning. While this complex context could have been seen as an advantage if the learning had been more relevant to the learners' everyday lives, the majority of the participants in the current study did not feel that way, instead reporting that many demands on their time were pulling them away from Macedonian language study. This finding echoes White's (2003) conclusions that distance learners feel their complex context as part-time language learners compromises their ability to develop an effective learning environment and engage with the target language.

Another challenge that was reported by a majority of the participants was lack of study resources, including structured learning materials which impose an external organization to the learning process; formal/graded classes; resources for advanced study; books, grammars, dictionaries; resources using visuals; and online exercises and puzzles. The participants also reported alphabet-centered frustrations. These challenges represent opportunities for development of instructional resources.

None of the participants reported technological problems with the tools they were using to learn Macedonian. Although previous studies (Lai, Zhao & Li, 2008) noted problems with scheduling synchronous virtual meetings, the tutored participants in this study did not report such issues, probably because the tutors they had sought out were in the same

part of the world as themselves (Greek resident Constantin's tutor was from Macedonia, and U.S. residents Beatrice's, Grace's, and Iris' tutors were also in the U.S.). For similar reasons, participants did not address trans-cultural communication, a topic often treated in studies of computer-mediated discourse.

Lastly, it's interesting that none of the participants spoke about evaluating the quality of the resources (including virtual, physical and human) that they found. Taking into consideration that anyone can create and put materials online, it is plausible that some of those materials could be inappropriate or could present incorrect information. This is one reason why nowadays schools in the U.S. in general are beginning to teach students about evaluating the quality of Internet resources they find. Therefore, the finding that learners of Macedonian are not aware of the need to evaluate the quality of the resources they find represents a large gap that needs to be addressed. The same lack of focus on demonstrating quality and achievement of learning outcomes was reported by Smith and Salam (2000) for ESL-teaching cyberschools that they evaluated over a decade ago.

#### **5.4. Impact on Design of Materials and Resources**

The last research question aimed to put the findings from the study into practice, in order to connect learners and their experiences with instructional designers and practitioners in the fields of informal learning, self-instruction, and less commonly taught languages. The clearest impact of the participants' experiences with studying Macedonian on the design of materials and resources lies in their plea to make more materials and resources available. Considering that many learners were using multiple resources simultaneously, supplementing

certain materials with others, it could be concluded that it would even be useful to have multiple materials treating the same topics, thereby creating a more complex context (in terms of the learner-context interface) for learners to interact within. Although only mentioned by one participant in the study, materials treating the differences between standard Macedonian and Macedonian dialects are also sorely needed.

Since all the participants used online means to search for resources, and most were comfortable using online materials and considered them effective, this medium would serve well as a means of distribution of future learning resources. Two of the participants specified their preference for including visuals in language learning materials and one of them specifically mentioned looking for resources that combine audio and visual cues, which instructional designers should keep in mind.

Because in this study it became evident that the experiences of tutored and untutored learners could not be separated as distinct groups (because some untutored learners had previously had tutors and teachers, whereas some tutored learners considered their significant others their tutors regardless of the frequency of "tutoring"), instructional designers should consider the availability of tutors as just an additional supplementary resource in the context of language learning. Another conclusion that points in that direction is that in the case of five of the six tutored learners and one of the learners who was not currently tutored but had been in the past, they sought out the tutor when they thought they needed it, just as they sought out other physical or online resources and materials that fit their needs and learning preferences.

Concerning previously divergent research on learner preferences for collaborative activities (Campbell Gibson, 1998; McKay and Tom, 1999; Murray, 2011; Ros i Sole & Hopkins, 2007; Styer, 2007), the overwhelming majority of participants in this study thought that virtual learning communities would be helpful for them (like the participants in Belamaric Wilsey, 2013). This result may be because of the current lack of such learning resources and the general tendency of participants to want more resources of all and any kind. Potential instructional designers of such communities need to also keep in mind the tremendous challenges on time imposed by the learners' complex schedules, as the learners themselves reported in the study. Therefore, creating such communities will likely entail a balancing act between providing enough meaningful opportunities for authentic interaction and taking into consideration the needs, language proficiency levels, and time constraints of just a handful of different learners. This is indeed an instructional design challenge, perhaps even an insurmountable one.

Previous research (Ushida, 2005) pointed out that learners took a longer time to build a learning community in hybrid than in face-to-face classes due to the lesser amount of synchronous contact. But several participants in this study reported using Facebook as an example of social media to stay in contact with Macedonian speakers, whether ones that they met in Macedonia or friends and relatives from there. Therefore, it might be possible to mine those existing connections in virtual communities for an educational purpose. However, two of those participants that reported using Facebook to stay in touch with Macedonians also stated that their use decreased over time because they just got busy with other things. This

finding impacts design in the sense that while such existing social media connections could be good to introduce learners to Macedonian speakers, stronger and specifically "learning" communities need to be built (perhaps with other learners) that will be sustained by learners over time. Several participants in the study specifically mentioned that participating in learning communities with other learners would be a welcome and helpful resource. This view diverges from results of recent research with English learners in informal contexts in Malaysia and Iran (Bahrani & Sim, 2012), which has shown that just practicing the language with others who are not native speakers of the target language is not as helpful for speaking proficiency gains as exposure to authentic language input from audiovisual mass media technologies. Further research is needed to confirm Bahrani and Sim's (2012) conclusions in other settings.

While participants in the study were asked what Internet resources they used, they were not asked to rank them for their usefulness or amusement, which promote engagement. However, many of the activities deemed useful and pleasurable by other language learners (Peters, Weinberg & Sarma, 2009; Sundqvist, 2011) were also reported as used by the participants in this study: consulting online grammars/dictionaries, online grammar exercises, vocabulary exercises and online quizzes, news, movies, music, and e-textbooks from Macedonia. For example, Emma stated:

Online exercises are great because everybody likes to not just use notebook, I mean real paper and to put things, but to do something interactive. Online helps a lot because it's fun together with studying. Even if you just do a

simple matching or typing in sentences. That helps a lot because it's more interesting this way.

However, whereas blogs and text on the computer were rated as not as useful by the participants in previous studies, one of the participants in the current study explicitly said that even a blog or group site of learners of Macedonian from her culture would potentially be helpful for her.

Speaking specifically about the materials on the Macedonian Language E-Learning Center Website, several of the participants in the study commented on the usefulness of podcasts, crossword puzzles, quizzes, interactive exercises and the systematic organization of materials. In addition, one other participant praised the center's approach thusly:

Your site is very good and takes into account a lot of linguistic teachings. And in terms of effectiveness, I think other people that are trying to teach languages should use some of the methodology you're using. Educationally speaking, it's very effective. The idea of repetition and explanation, it's very effective, I've found.

In addition to these resources that the participants stated they enjoyed, they also wanted to have more exercises and more specific quiz feedback, honing in on the mistake they made rather than just presenting correct answers and leaving it up to the users to figure out the difference between their own answer and the correct one.

Users' descriptions of how they are using the materials are helpful for instructional designers so they can design better resources. Therefore, several users of the Macedonian

Language E-Learning Center materials specifically addressed how they manipulate the resources to aid their learning; their experiences illustrate principles of self-regulated learning. For example, among other strategies, Hsu et al. (2009) noted that learners needed to be provided with encouragement of and strategies for note-taking. Similarly, Emma stated:

when I used your site for the first time, when I started using it, I was just reading and doing exercises but I wasn't taking any notes. And then I realized that I need some revision... Because it was quite quick. I wanted to know more and more and more and quite quickly I was going through the units. And then I decided that I need some revision and probably just to put things again in order in my head. I started to take notes.

Instructional designers should take cue from experiences like Emma's and specifically instruct the users how they as the designers foresee them using the materials, addressing specifically that note-taking is encouraged if not mandatory.

Another takeaway is based on the experiences of Frank, who also had to go through the materials a second time because he had to adjust his expectations. Frank said:

I'm only up on unit 2 right now. I actually jumped around... which I'm sure a lot of people do. The first thing seems very easy so I'd skipped ahead and realized 'uh oh I missed something.' I'm going methodically through it. Sometimes it's been real laborious for me and sometimes not.

Frank's experience reminds instructional designers that they need to help learners set up correct expectations for the pace of the instruction.

Being self-regulated learners, the users of self-instructional multimedia materials, such as the ones provided by the Macedonian Language E-Learning Center, will experiment with the materials and learning strategies to find the best fit for them as individuals. So, instructional designers need to provide learners with the information to best navigate the materials and adapt them to their own needs and preferences. This is even more true taking into consideration most learners' reports that they did not have specific goals and objectives for their study nor time-frames for achieving them, but just a general end state as a motivating goal. Designers of materials, teachers and tutors can and should help learners think about, come up with, and understand how to work towards their end goals. In these aspects, the user-experience-driven recommendations from the current study echo Murray's (2011) advice "to support learners without depriving them of experiential learning opportunities" (p.139).

The complex backgrounds and experiences described by the participants in the study continue in the humanist tradition of emphasizing the learner and his/her perspectives on their own language study. These learners' stories remind practitioners to assess the backgrounds and context of their learners prior to setting in place any interventions, such as tutoring. Specific to less commonly taught languages, the participants in this study illuminated some of the contextual factors that impact the needs of the learners: whether the learners live in a community of immigrants, in the country whose target language they are learning, or isolated from such communities, where their social network likely includes limited if any contact with the target language. Assessing this context will impact the type of

support that the learners may require from the resources they are consulting, including online, physical, and human. But at the core of the question of what the learners said they wanted were common needs for more and more varied resources for language study and maintenance, including a non-judgmental place to practice and use their spoken language. It is up to instructional designers, language teachers, and tutors to use current technological capabilities in order to provide these resources and spaces.

### **5.5. Further Research**

Because this study is innovative in exploring the topic of informal study of one less commonly taught language, Macedonian, and the topic is vast, there are many follow-up questions that further research should answer. For example, the present study was not concerned with the relative usefulness of the various methods and resources that the learners employed during their self- or tutored language study. Illuminating the effectiveness of the methods and resources employed would be an important next step for research both for instructional designers and practitioners as well as for the learners themselves. In fact, assessing the effectiveness and efficiency of learning materials is part of evaluation during a systematic instructional design process because it yields crucial information about the quality of resources. Learners would also be interested in what methods and resources are effective and efficient because as adult learners who are often studying languages like Macedonian in their minimal spare time, they would have a vested interest in getting the most out of their time investment.

Additionally, the current research deliberately focused on experiences and motivations rather than outcomes, and therefore did not assess the level of language proficiency of the participants. In future research, it would be helpful for teachers and tutors to know whether experiences with self-instructional materials and with online tutors are different based on the proficiency level of the learners. Previous researchers (Jones, 1998; Ng et al., 2006) have concluded that beginners have a difficult time with online materials, so further research testing that claim specific to learning a less commonly taught language is needed. Since learners of less commonly taught languages, or at least those in this study, previously studied other foreign languages, and are experienced language learners, they may not have as much difficulty with self-instructional materials at the beginning level because of the wealth of language learning experiences they can draw on.

Since the biggest challenge for participants in the study was finding a way to practice their language, i.e. use it in communication, and since most participants were interested in exploring virtual communities to meet that challenge, the effectiveness of such a community would be another suggested topic for future research. If there was a virtual community for practicing the target language, would that bridge the gap left by the lack of opportunities for communication in the learners' ecosystem? It would also be fascinating to follow such a community and compare the dynamics with those described in previous research on computer-mediated communication (CMC) for English and the other more commonly taught languages.

Another potential area for future research would follow some of the learners that participated in the study for an even longer period of time than in the current study in an attempt to gauge perseverance with language learning. Even in the relatively short amount of time that most of the participants in the current study were in touch with the researcher, several of them reported major life events that contributed to their change in course from what they had originally planned and what they had discussed during the interview for the study. A more longitudinal view would be helpful to determine what life events impact or interrupt learners' trajectories of learning, which would be valuable information for tutors and teachers in order to be able to predict learners' behaviors and assist them to continue learning. It would also be beneficial information for the learners themselves, since as self-regulated learners they could learn how to persist with their language learning process.

As was mentioned at the outset of the study, the current research had several limitations inherent to the qualitative design and the small sample size. Therefore, further research using quantitative methods that could potentially tap into the experiences of more learners, especially those learning other less commonly taught languages, would help researchers be able to better generalize the results from the present study and put these results in the correct perspective.

Likewise, the current study was only limited to one language, Macedonian, and the participants were recruited from one site, the Macedonian Language E-Learning Center (MLEC). Future researchers would be well served to ask the same questions as were asked in the current study but with populations of learners of other less commonly taught languages

and in other informal learning and self-instructional settings. This type of research is crucial to determine whether the experiences recorded in this study are limited to Macedonian or the learners with MLEC materials or if they also resonate with other learners as well as in other informal and self-instructional learning settings. If the latter is found to be true, then the recommendations for instructional designers and practitioners from this study may be applicable beyond the setting of the current research.

Lastly, the present study explored some aspects of the context, learners, and the learner-context interface, but the scope did not allow for a full investigation of the interface. Therefore, the researcher refrained from making any judgment on whether White's theory of the learner-context interface can be an appropriate framework for studies outside of the distance education setting in which the theory was developed. Future studies need to determine if and how the learners themselves were changed through the process of interacting with the interface and compare that to White's (1999) findings about distance education language learners. Exploring this theoretical topic further would be a welcome addition to the field of informal and self-instructional language learning with technology.

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## APPENDICES

## Appendix A: Participant Recruitment Materials

Dear potential participant,

We are contacting you about participating in a study about the experiences of learners' of Macedonian through online materials. The study is researching the following questions:

- How do learners' environments impact their learning with the online materials on the Macedonian Language E-learning Center Website? How are language learning motivations impacted?
- How do learners of Macedonian locate and use technology for language learning that makes it possible for them to fit language learning into the totality of their lives? Do they think their processes are effective?
- What challenges or opportunities do they see and what challenges or opportunities are evident?
- Finally, what impact do these challenges and opportunities have on instructional design of materials and resources for informal language study of less commonly taught languages such as Macedonian?

The study is conducted by Biljana Belamaric Wilsey, a doctoral student in Instructional Technology at North Carolina State University in Raleigh, NC, USA and is approved by IRB 2600.

Each participant will be interviewed two to three times during the summer and winter of 2012 via Skype and face-to-face. Each participant will also be observed using Macedonian in his or her home or community. Participants will be asked to keep a weekly reflective journal, either on paper or online, about their learning experiences with Macedonian. They will also be asked to share that journal as well as any study notes and/or assignments with the researcher. All data and correspondence with the researcher will be kept private and confidential. It will only be reported as anonymous data.

If you are interested in being considered for participation, please take a few minutes to fill out this questionnaire as honestly and accurately as you can. Your answers will be kept private and confidential. By completing the online survey, you indicate your consent to be in the study.

1. Have you used the Macedonian Language E-Learning Center online materials and resources for studying Macedonian?

- a. yes > Continue to question 2
- b. no > Thank you for your answer, but you are not eligible for this study at this time.
- 2. If yes, have you been using these materials for at least three months?
  - a. yes > Continue to question 3
  - b. no > Thank you for your answer, but you are not eligible for this study at this time.
- 3. If yes, think about the frequency with which you have been using these materials. Would you say that on average you use the materials at least twice a month?
  - a. yes > Continue to question 4
  - b. no > Thank you for your answer, but you are not eligible for this study at this time.
- 4. Do you currently use a tutor or teacher to supplement studying with these materials?
  - a. yes
  - b. no
- 5. The research will take place during the spring and summer of 2012. It will require several interviews with the researcher and an observation of how and where you use Macedonian outside of studying it. The interviews may be conducted online whereas the observation will take place in your home or community. The research will also require that you keep a reflective journal, either on paper or online, about your learning experiences with Macedonian and that you share that journal with the researcher. Would you be interested in participating in this study? (Note that even if you state your interest to participate, you might not be chosen as a participant, since the sample will be chosen based on the diversity of interested potential participants.)
  - a. yes > Continue to question 6
  - b. no > Thank you for your time to answer this questionnaire!
- 6. If yes, please provide us with some information that will better assist us in choosing the participants for the study. Regardless of whether you are chosen or not, your information will be kept completely confidential. How old are you?
  - a. 20 and under
  - b. 21-30
  - c. 31-40
  - d. 41-50
  - e. 51-60
  - f. 61 and above
- 7. What is your gender?
  - a. male
  - b. female
- 8. What is your country of residence?  
<open ended response>
- 9. What is the highest level of completed education?
  - a. not graduated from high school
  - b. high school diploma
  - c. bachelor's degree or equivalent
  - d. master's degree or equivalent

e. doctoral degree or equivalent

10. What is your level of experience with studying languages online?

a. This is my first experience with studying languages online

b. I've studied another language online before

c. I've studied several other languages online before

11. How often do you interact with other speakers of Macedonian (either online or in person) either in Macedonian or another language you both speak?

a. daily

b. weekly

c. monthly

d. almost never or never

12. Do you consider yourself a heritage speaker (have you heard Macedonian throughout your childhood or youth because your parents or grandparents spoke it to you)?

a. yes

b. no

13. Thank you for answering the questions in this questionnaire! The researcher appreciates your time and input! The researcher will contact you to let you know whether you have been chosen for the study. Please provide the email address for contact: \_\_\_\_\_ This email address will only be used to let you know whether or not you have been chosen to participate in the study and will not be shared with anyone else. Your privacy is protected. Thank you again for your help!

Biljana Belamaric Wilsey

## Appendix B: Questions and Procedure for Open-ended Interviews

All participants were emailed the following questions ahead of time:

1. Please describe your day-to-day life and responsibilities: family, work, social activities, etc. (~research q 1-2)
2. Why did you decide to study Macedonian? When and how did you start? How long did it take you to find materials and how did you find them? Did you have clear goals about what you wanted to accomplish? (~research q 1-2)
3. What kind of materials did you find? Were they suitable for what you wanted to accomplish? How so? If no, what did you do next? If yes, how long have you used them and are you still happy with those materials/approaches? (~research q 2)
4. Can you describe what you do to study Macedonian, what your process is and how often you study? And how have you done it in the past? (~research q 1)
5. Do you have support for studying and practicing the language? In your family, at work, in your community? Describe how you use the language in each situation. (~research q 1)
6. What aspects of the society and culture you live in do you think impact your language learning situation, if any? How is this impact manifested in your situation? (~research q 1)
7. What do you do when you feel unmotivated to study or to beat the resistance you may feel from the family, home, community, or culture we live in? How do you regain your motivation? (~research q 1)
8. Thinking about your entire experience of learning Macedonian, taking into consideration all of the particularities you mentioned, do you think your process has been effective? If yes, what has made it effective? If not, what could make it more effective? (research q 2-4)
9. What challenges do you see for someone in your shoes learning Macedonian? (~research q 3) Have you overcome those challenges and how? What advice would you give to someone else in the same situation? (~research q 4)
10. What are some ways that learning Macedonian could be made easier for you or more accessible? If they were available, what options that are not currently available would you take advantage of? (~research q 3-4)

All participants were told the following at the beginning of the interviews:

1. The purpose of the proposed research is to illuminate how learners of language informally and using online materials structure their learning in order to fit in with the totality of their lives. Specifically, the research questions include how learners find and use resources for studying languages online, what challenges and opportunities they see in this endeavor, and how these challenges and opportunities impact the instructional design of materials for these populations of learners. The research focuses on Macedonian and the resources for studying this language through the Macedonian Language E-Learning Center.

- 2a. For tutored participants: After this interview I would like to observe one of your sessions with your tutor via Skype. Is this possible? Can you ask your tutor to contact me and let me know he or she agrees to an observation? Their identity is confidential and will not be revealed in the study. After the observation, I'd like to have the opportunity to ask a few more questions in a short interview.
- 2b. For untutored participants: : After this interview I would like to observe an event in which you engage with the language you are studying. Your knowledge of the language will NOT be evaluated. This may be a cultural event in your community or a family event, if your family speaks the language. After the observation, I'd like to have the opportunity to ask a few more questions.
3. You will also be asked to keep a reflective journal regarding your language learning experiences, including your learning progress, which I will analyze as part of my data. The format is up to you, a blog or a document or scanned pieces of paper. The schedule of entries should be at least weekly. The focus of the journal should be what you studied that week, how you felt about it, or if you couldn't study, what came in the way etc.