

THE ROLE OF CALL IN PROMOTING LEARNER AUTONOMY

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ABSTRACT

THE ROLE OF CALL IN PROMOTING LEARNER AUTONOMY

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In this study, four aspects of learner autonomy within the context of CALL were investigated so as to find out whether CALL environments contribute to the development of learner autonomy. Two groups of students, in total 48 preparatory school students, at intermediate level in the Department of Foreign Languages at a private university in Ankara were chosen to take part in the study. First, the students' language learning strategy use was explored. Then, only one group of students was given a five-week language learning strategy training through CALL. During the training, their motivation levels, willingness to take responsibility for learning and involvement in out-of-class studies were scrutinized.

In order to reach the aforementioned goals, both qualitative and quantitative data were collected by the help of questionnaires, semi-structured face-to-face interviews, observations, e-learning diaries kept by the strategy training group and a five-week language learning strategy training through CALL. In order to reach the aim of the study, the data were collected in the form of pre-test and post-test for the language learning strategies of the learners from both groups to be analyzed and evaluated. Besides, both groups were observed by the instructors in order to address motivation, taking responsibility for learning and engaging in out-of-class study. However, only the students in one group were given a five-week language learning strategy training through CALL, and they were interviewed before and after the training and they kept e-learning diaries.

The findings indicated that the five-week language learning strategy training helped the students in the strategy training group to improve their use of language learning strategies as well as increasing their motivation, encouraging them to take responsibility for their learning and engage in out-of-class activities. However, when compared to the students in the strategy training group, the students who did not get the five-week language learning strategy training through CALL did not show many uses of language learning strategies, high motivation levels, willingness to take responsibility and engage in out-of-class activities. Since the main aim of this study was to foster learner autonomy by the help of CALL, this study attempted to suggest ways to help learners to use language learning strategies, increase their motivation, take responsibility for learning and engage in out-of-class.

Keywords: CALL, learner autonomy, learning strategies, motivation, taking responsibility, out-of-class study, language learning

ÖZ

BİLGİSAYAR DESTEKLİ DİL ÖĞRENİMİNİN ÖĞRENCİ ÖZERKLİĞİNİ ARTTIRMADAKİ ROLÜ

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Bu çalışmada, öğrenci özerkliğinin dört yönü Bilgisayar Destekli Dil Öğrenimi ortamının öğrenci özerkliğini arttırmada katkısı olup olmadığını ortaya koymak için Bilgisayar Destekli Dil Öğrenimi ortamında incelenmiştir. Toplamda 48 hazırlık sınıfı öğrencisi olmak üzere, Ankara'daki özel bir üniversitede iki grup orta düzey İngilizce hazırlık sınıfı öğrencisi çalışmaya katılmaları için seçilmiştir. Öncelikle öğrencilerin öğrenme stratejilerini kullanımları saptanmıştır. Daha sonra, Bilgisayar Destekli Dil Öğrenimi kullanılarak sadece bir grup öğrenciye öğrenme yöntemleri üzerine 5 haftalık bir eğitim verilmiştir. Bu eğitim sırasında, öğrencilerin motivasyon düzeyleri, öğrenme ile ilgili sorumluluk almaları ve ders dışı çalışmalara katılımları incelenmiştir.

Yukarıda belirtilen hedeflere ulaşmak için, bir anket, yüz yüze yarı yapılandırılmış görüşmeler, gözlem, elektronik öğrenme günceleri ve beş haftalık dil öğrenme stratejileri eğitimi Bilgisayar Destekli Dil Öğrenimi kullanılarak nitel ve nicel veri toplanmıştır. Çalışmanın amacına ulaşmak için, veri analiz edilip değerlendirilmek üzere her iki gruba da ön test ve son testler uygulanarak toplanmıştır. Buna ek olarak, motivasyon, öğrenme ile ilgili sorumluluk alma ve ders dışı çalışmalara katılım konularına değinmek için her iki grup da okutmanlar tarafından gözlenmiştir. Fakat, sadece bir grup öğrenciye Bilgisayar Destekli Dil Öğrenimi kullanılarak beş haftalık bir eğitim, eğitim öncesi ve sonrası görüşmeler uygulanmış ve öğrencilerin elektronik günceler tutmaları sağlanmıştır.

Bulgular, beş haftalık eğitimin öğrencilerin motivasyonlarını arttırmanın, öğrenmeye karşı sorumluluk almalarının, sınıf dışı çalışmalara katılmalarının yanı sıra dil öğrenme yöntemlerini kullanmalarına yardımcı olduğunu göstermiştir. Fakat, Bilgisayar Destekli Dil Öğrenimi kullanılarak verilen beş haftalık eğitimi almayan öğrencilerin ders dışı çalışmalara katılım, sorumluluk alma konusunda isteklilik, yüksek motivasyon ve dil öğrenme yöntemleri kullanımını göstermediklerini ortaya koymuştur. Bu çalışmanın temel amacı Bilgisayar Destekli Dil Öğrenimi yardımıyla öğrenci özerkliğini arttırmak olduğu için, bu çalışma sınıf dışı çalışmalara katılımı, öğrenme ile ilgili sorumluluk almayı ve dil öğrenim yöntemlerinin kullanımını arttırmaya yönelik yollar ortaya koymaya çalışmaktadır.

Anahtar Kelimeler: Bilgisayar destekli dil öğrenimi, öğrenci özerkliği, öğrenme stratejileri, motivasyon, sorumluluk alma, sınıf dışı ders çalışma, dil öğrenimi

To You
Büşra & Berika

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CHAPTER 1

INTRODUCTION

1.1. Introduction

The field of second or foreign language teaching has undergone many shifts and trends over the last few decades (Brandl, 2008). However, the turning point in language education is the time when great emphasis started to be put on the role of learners. That is, over the last twenty years, language educators started to put learners in the center of classroom organization by taking into consideration their needs, strategies, styles, and students started to be seen as individuals. This view of change in language education brought the concept of learner-centeredness which has, in fact, a long history of development (Henson, 2003) in language education. Nunan (1988) defines learner-centered education as a collaborative effort between teachers and learners adding that it differs from traditional language education in which the teachers transfer some set of rules to the students (p.2). According to Tudor (1993), learner-centered education is not a method; however, it is an approach which requires students to have more active and participatory roles in teaching and learning process when compared to traditional education.

A significant impetus to develop learner-centered language teaching came with the introduction of communicative language teaching. Communicative language teaching emphasizes the fact that learners must learn not only to make grammatically correct, propositional statements about the experiential world, but must also develop the ability to use language to get things done (Nunan, 1988, p. 25). In communicative language teaching, the primary function of language use is communication, that is, its main goal for learners is to develop communicative

competence (Brandl, 2008, p.5). With the introduction of communicative language teaching, the notion of communicative competence which is described as general ability to use the language in everyday situations (Littlewood, 1981) entered into the field of language teaching and learning. Finally, when language educators started to focus on the development of communicative competence of language learners, cooperative and collaborative teaching in which classrooms are organized so that students work together in small cooperative teams such as groups or pairs to complete activities (Brandl, 2008) have gained importance.

Finally, learner-centeredness in language education has led to the emergence of the notion of learner autonomy which first entered the field of language education in 1971 through the Council of Europe's Modern Languages Project and it is defined as the capacity to take charge of one's own learning (Benson, 2001). Communicative language teaching, learner-centeredness and autonomy put emphasis on the learner as the key point in the learning process, and many researchers in the fields of communicative language teaching and learner-centered practice have integrated the concept of autonomy into their work.

Learner autonomy in language education has been used with other concepts such as self-regulated language learning, self-directed learning, self access resource centers and the idea of learning training (Benson, 2006). Each of these notions aimed to help students to learn how to think, how to learn and to take control of their learning through critical thinking skills, creative thinking skills, problem solving skills and learning strategies. However, among these, language learning strategy training gained great popularity among language educators (Benson, 2006).

Oxford (1990) defined language learning strategies as steps taken by students to enhance their own learning (p.1). According to Oxford, these strategies contribute to the development of learners' communicative competence and allow learners to be more self-directed. Language learning strategies are seen as necessary steps for students as they help them to learn how to think, how to learn

and to take control over their learning not only during the formal education but also after leaving the formal education at school.

Learner autonomy in language education is said to be the expectation that learners should become active participants accepting responsibility for their own learning. Benson and Voller (1997) put emphasis on the fact that before expecting learners to accept responsibility for their own learning, teachers should overtake the role of counseling learners, that is; they should raise learners' awareness of learning a language. Furthermore, they state that teachers are required to act as facilitators who motivate learners and help them to gain the skills and knowledge necessary for autonomous learning.

Motivation is seen as one of the most significant part of becoming autonomous in language education. Ushioda (1996) highlights that autonomous learners are motivated learners. Furthermore, she argues that in language learning, learners who can take self-motivational initiatives in negative affective experiences will be at a great advantage. Spratt, Humphreys and Chan (2002) conducted a study to find out about learners' readiness for learner autonomy and the results demonstrated that motivation is a key factor that influences the extent to which learners are ready to learn autonomously, and that teachers might ensure that students are motivated before they give training to students on autonomous learning.

Another important aspect of learner autonomy in language education is encouraging learners to increase their awareness of independent learning outside the classroom. With the help of learners' independent learning outside the classroom, their learning process will continue and they will take increasing responsibility for their learning (Field, 2007). This is highly significant for language learners as learning a language is more than attending classes. It also requires students to engage in outside classroom activities such as reading, listening and communicating in the target language.

In its early development, learner autonomy in language education was characterized by a focus on self-directed learning in self-access centers which was

followed by a shift toward classroom applications (Benson, 2006, p.25). However, although interest in autonomy has grown considerably (Benson, 2006), teachers within the normal context of a classroom do not find opportunities to truly promote learner autonomy (Liu et al., 2002). In order for autonomy to develop, Holden and Usuki (1999) points out that students should be both cognitively and metacognitively aware of their role in the learning process, search for creating opportunities to learn, and try to actively manage their learning inside and outside the classroom. Additionally, they further state that students should be encouraged to study in an atmosphere in which they are free to express themselves, speak with and question others and contribute to the management of others all of which are not supported in traditional teacher-centered classes (p.1). However, as Murray (1999) states, advancements in technology enable educators to foster learner autonomy by encouraging agency and providing learners with the tools they need in order to make decisions and take action in harmony with their personal identity (p.306).

Lee et al. (2005) claim that English language teaching can be greatly enhanced and become more effective with new technology through paying attention to getting and keeping students' attention by using a sense of novelty, variety, humor and mystery all of which will give students a lot of satisfaction by intrinsic motivation. They also add that new technology has great potential to make lessons relevant to students' experience through matching interests and connecting them to the objectives of the lessons. Finally, they state that students will be led to develop their confidence and competence by the help of available technology to take personal responsibility for their learning.

Becoming autonomous language learners necessitates an appropriate environment where learners obtain opportunities of developing their language learning skills, increasing their motivation, taking responsibility for their own learning and utilizing activities and materials to carry out outside the classroom. To create such a learning environment, Dolan (2002) stresses that the principles of

learner autonomy such as learner differences, learner responsibility and control seem to be encouraged and fostered by technology.

As far as the English Language Education in Turkey is considered, it is believed that the development of learner autonomy is not supported because of curricular issues. This was also supported by Şentuna (2002), whose study revealed that although instructors are fairly interested in promoting student autonomy, curricular issues in their institutions do not allow them to promote learner autonomy.

Akcaoglu (2008) states that being one of the developing countries, Turkey has increasing tendency to buy more computers for schools. Especially, private universities started to equip their classrooms with computers and some private universities donate a laptop to its instructors and some even to its students in Turkey. Despite the investments and changing visions stated above, the technology integration in Turkey is still is not at the levels of developed countries. However, it is clear that by the help of this new vision, technology integration has become easier and more widespread within Turkish classrooms.

Technology including computers and the Internet seems to encourage learner autonomy in the sense that it establishes the desired environment for learner autonomy to develop. Learners benefit from working at their own pace where and when they want to study. Additionally, computers and the Internet increase learners' motivation level in language education by offering learners something of their interest and bringing variety both inside and outside the classroom. Moreover, they contribute to the development of learners' language learning strategies through exposing them to rich authentic language input in a social environment. Finally, allowing students to work on their own at their own pace, computers and the Internet encourage learners to take increasing responsibility for their own learning both inside and outside the classroom.

Although it is said that when compared to developed countries, the computer and Internet availability at schools are restricted in Turkey (Akcaoglu, 2008), it is still necessary to investigate the potential of technology regarding

learner autonomy development using available technologically equipped environments at schools in Turkey for future implementation. Furthermore, such data on the direct role of computers and the Internet in fostering learner autonomy in language classrooms is not available. That is, there is still a gap regarding the role of call in promoting learner autonomy.

1.2. Background of the Study

The study was conducted at a private university in Turkey and it aimed to gather data about the place of CALL in promoting learner autonomy. Four aspects of learner autonomy were focused on within the context of CALL. These were language learning strategy use, learners' motivation levels, responsibility taking for learning and participation in out-of-class activities.

The university where the study was conducted is one of the new private universities in Turkey. Due to its being new, it gets students in small numbers each year. Depending on the university entrance exam scores, the university provides the students with scholarship and donates a laptop to each of the students enrolled in the university. The Department of Foreign Languages has approximately forty instructors whose teaching experiences vary between one year and five years. Apart from the instructors, the department has a chairperson, one academic coordinator, one administrative coordinator, a Curriculum Development, Testing and Evaluation Unit.

The department offers an intensive English preparatory program for the new students at three different levels. The students are placed at three levels according to their achievement levels in the three-stage exam given by the Department of Foreign Languages. The instructors who are contracted to teach 20 hours a week are usually given two different classes randomly at the beginning of the semester.

The university where the study was carried out is well-equipped with technology. It offers anything that a language teacher and learner might need in this long and somewhat challenging teaching and learning process. Both the teachers and the students are given a personal laptop and there is wireless internet

access at the university. Each classroom has an overhead projector. Considering all these things, both as a teacher and researcher, I believe that the students are not guided enough to use the internet for the benefit of their language improvement. Moreover, families complain about their children who study at the university wasting their time in front of their laptops talking with their friends on MSN or playing computer games instead of studying. Another point is that my full two-year experience at the university shows that the main and common problem of the students at the university is that they do not know how to study and what to study when learning a language. They feel comfortable and secure in the classroom due to the fact that they rely on the teacher, however, when they get out of the classroom, they get lost and spend most of their time on worrying about their low level of English. Not knowing what to do when learning English and how to study English cause them to lose their motivation and they accordingly stop studying, which results in low grades and repeating the same year. There could also be other factors that lead students to failure, but this problem of not knowing what to study and how to study when they are learning a language has always been a common reason of failure of many students. Taking all these things into consideration, I decided to conduct a study to help the students develop their language learning strategies, increase their motivation level, take responsibility for their own learning and engage in outside classroom activities all of which lead towards autonomy development in language education by the help of computers and the Internet. My ultimate aim was to encourage learners to become autonomous in language learning and make use of the technology available at the university for the benefit of the students.

1.3. Purpose of the Study

Motteram (1997, cited in Benson, 2001) states that there has always been a perceived relationship between educational technology and learner autonomy. This is taking educational technology in its broadest sense and taking learner autonomy as the superordinate term. This has become increasingly true for

computers (p.136). It is believed that computer-assisted language learning has the potential to provide the learners with an environment which encourages independent learning by providing resources to develop all skills and sub-skills of a language including necessary language learning strategies such as making use of available data in the target language and supporting different learning styles. As learners' success in the language depends on the availability of rich sources of the language focusing on all skills, computers and the Internet is thought to provide learners with a wide range of resources in the target language. Besides supporting independent learning, computers and the Internet attract the attention of learners leading towards increasing motivation levels in the target language education. Additionally, learners are encouraged to study outside the classroom on their own at their own paces, which helps learners to take responsibility for their own learning.

The ultimate aim of this study is to make use of the available language learning environments equipped with technology such as computers and the Internet to develop learner autonomy. In order for the autonomy in language education to be developed, changes leading towards autonomy in four areas were focused on. These are language learning strategy use, motivation levels of the learners in English language education, responsibility taken by the learners for their own learning and English language study done outside the classroom. All these four changes resulting in autonomy in language education were focused on within the context of CALL through using CMC tools.

1.4. Significance of the Study

Teaching a language with computers and the Internet has attracted many researchers' attention in recent years, therefore, a lot of different types of studies have been conducted to find out whether computers and the Internet promote language learning. However, most of the studies have focused on finding out about the learners or teachers' beliefs and attitudes towards computers and the Internet or whether computers and the Internet increase learners' achievement

levels or develop students' in-depth understanding of foreign cultural attitudes and values.

Motteram (1997, cited in Benson 2001) points out that new learning technologies have a long association with autonomy, however, up to now not many studies have been done regarding the computers and the Internet and their relation with learner autonomy in a language classroom (p.136). Benson (2001) implies that despite the wide application of computers and the Internet and the hypothesis that computers and the Internet contribute to learner autonomy, little research has been conducted on the role of CALL in promoting learner autonomy. Furthermore, Cotterall (2000) also comments that the contribution by the researchers to learner autonomy deal principally with the theoretical background of learner autonomy, and the role played by learner variables such as attitudes, beliefs, strategies and roles. Cotterall (2000) implies that it is considerably less common to read reports of classroom-based courses which integrate principles of learner autonomy in their design.

Additionally, language teachers usually complain about their students in the sense that they do not participate in the lessons, do their homework, cooperate with their friends and listen to their teachers and so on (Oxford, 1990). This mainly stems from the fact that students greatly rely on teachers and do not develop a sense of responsibility for their own learning. This brings about the notion of learner autonomy, which will help learners to change their behaviors from relying on the teacher to becoming independent language learners who are motivated to take responsibility and make use of opportunities to continue their studies outside the classroom.

Previous research on learner autonomy in CALL environments mostly focused on smaller parts of learner autonomy such as student motivation in CALL environments or out-of-class study via CALL. However, this study carries importance as to see four components of learner autonomy which are acquiring language learning strategies, motivation, taking responsibility and out-of-class study in CALL environments.

Therefore, the significance of this study lies in three main areas. First, as it is stated above, since data about the claim that computers and the Internet fosters learner autonomy in language education are limited, the findings of this study will constitute baseline for future research on the role of computers and the Internet in promoting autonomy in language education. Secondly, the results of this study provides empirical support for helping language learners to become more autonomous learners by the help of the computers and Internet and guiding language teachers towards creating a desirable environment encouraging autonomy via the latest technology in the classroom. Finally, being one of the developing countries, Turkey started to value computers and the Internet in education. Thus, the results of this study will contribute greatly to future implementation of technology into language education so as to help students become more autonomous in their language learning process at Turkish schools.

1.5. Research Questions

In order to form the basis and address the objectives of the study, the following research questions which are considered as a starting point for this research are asked within the study:

1. To what extent does the application of computer-assisted language learning increase learners' autonomy in language education?
 - a- To what extent do learners develop their language learning strategy use through computer-assisted language learning?
 - b- To what extent does learners' motivation increase through computer-assisted language learning?
 - c- To what extent do learners' accept responsibility for learning in computer-assisted language learning?

- d- To what extent do learners perform out-of-class activities in addition to class tasks in computer-assisted language learning?
- 2. Is there a significant difference between the groups of learners who get web-based instruction and who do not regarding language learning strategy use?
- 3. How does the application of computer-mediated language learning affect the learners' perceptions of English Language Learning on the computers and the Internet?

1.6. Definition of Terms

Asynchronous CMC: It is a kind of CMC, however, the users are not necessarily online at the same time. E-mails, message boards, and blogs are some examples.

Autonomous Learner: Autonomous learners are both cognitively and meta-cognitively aware of their role in the learning process, seek to create opportunities to learn, and attempt to actively manage their learning in and out of the classroom (Holden&Usuki, 1999, p.3).

CMC: Computer Mediated Communication in which computers are used as a tool.

Communicative Competence: General ability to use the language in everyday situations (Littlewood, 1981).

Communicative Language Teaching: Communicative language teaching emphasizes the fact that learners must learn not only to make grammatically correct, propositional statements about the experiential world, but must also develop the ability to use language to get things done (Nunan, 1988, p. 25).

Computer Assisted Language Learning (CALL): Using the Internet, software programs and computers for language teaching.

Cooperative Learning: Cooperative learning assumes that learning occurs among persons through constructing and maintaining knowledge not by examining the world but by negotiating with one another in communities of knowledgeable peers (Bruffee, 1999).

Independent learning: Independent learning means making use of the opportunities and experiences necessary for students to become capable, self-reliant, self-motivated and life-long learners.

Internet: The internet is a very large computer network that is made up from other smaller networks of computers.

Language Learning Strategies: Steps taken by students to enhance their own learning (Oxford, 1990, p.1).

Learner Autonomy: In effect, successful or expert or intelligent learners have learned how to learn. They have acquired the learning strategies, the knowledge about learning, and the attitudes that enable them to use these skills and knowledge confidently, flexibly, appropriately and independently of a teacher. Therefore, they are autonomous (Wenden, 1991, p.15).

Learner responsibility: Learner responsibility is defined as the idea that learners know their efforts are important to improve their learning. Such learners are capable of monitoring their progress and make an effort to progress in learning by the help of opportunities offered to them both inside and outside the classroom.

Learner-centered language teaching: It is defined as collaborative effort between teachers and learners and it differs from traditional language education in which the teachers transfer some set of rules to the students (Nunan, 1988, p.2).

Self-regulated learning: Self-regulation refers to the degree that individuals are metacognitively, motivationally and behaviorally active participants in their own learning (Zimmerman, 1994, cited in Sharp, Pocklington & Weindling, 2002, p. 37).

Strategy: Conscious movement toward a goal (Hsiao and Oxford, 2002, p.369).

Synchronous CMC: It is a part of CMC in which the users are online at the same time. In order to communicate with each other users should be available on the net. Chat and instant messaging programs are examples of synchronous CMC.

Web-based education (WBE): Using the Internet, software programs and computers for language teaching.

Web-based instruction (WBT): Using the Internet, software programs and computers for language teaching.

World Wide Web (WWW): The visible face of the Internet, is the interface between users and the network of computers where many millions of websites with their many millions of items of information are to be found.

CHAPTER 2

REVIEW OF RELATED LITERATURE

2.1. Review of the Chapter

This chapter is mainly divided into five sections and each section has related sub-sections. The first section focuses on definitions and the origins of learner autonomy, its development in language education, autonomous learners and the conditions necessary for the development of learner autonomy. The next section explicates what CALL is and CMC within CALL. Thirdly, pedagogies used in CALL are introduced and then, the effectiveness of CALL on learner autonomy and studies on learner autonomy in CALL environments are discussed. Finally, the theoretical framework of this study, social constructivism, is presented.

2.2. Learner Autonomy

Autonomy has taken place for a long time in educational, psychological and philosophical thought. In particular, research within the psychology of learning provides strong grounds for believing that autonomy is essential for effective learning. This has led the researchers search more for learner autonomy. Then, Benson (2001) has come up with the most important three claims that stand out regarding autonomy. Firstly, autonomy is defined as taking control over someone's learning. Although all learners could have autonomy, the degree of autonomy that the learners have depends on the unique characteristics of each learner and learning situation. Secondly, some learners might be more autonomous than others. However, learners who are less autonomous than other learners can still develop their autonomy if appropriate conditions are offered.

These conditions mainly incorporate opportunities to exercise control over learning. Finally, autonomous learning is said to be more effective than non-autonomous learning. That is, developing autonomy in education means better language learning.

2.3. Learner Autonomy in Language Education

The first roots of autonomy in language learning have been established through the Council of Europe's Modern Languages Project, which was established in 1971. The establishment of the Centre de Recherches et d'Applications en Langues (CRAPEL) at the University of Nancy, France, which rapidly became a focal point for research and practice in the field was one of the outcomes of this project. Yves Chalon, the founder of CRAPEL, is thought to be the creator of autonomy in language learning. Chalon died at an early age in 1972 and the leadership of CRAPEL was passed to Henri Holec, who remains a significant figure in the field of autonomy today (Benson, 2001, p.8).

Gremmo and Riley (1995) claim that the popularity of autonomy in language learning associated with an ideological shift away from consumerism and materialism towards an emphasis on the meaning and value of personal experience, quality of life, personal freedom and minority rights. This shows that ideological values of autonomy attract the attention of many language educators today.

Although the idea of helping learners to be more autonomous in their learning has become an important issue in language education, the definition of autonomy creates conceptual confusion among educators and researchers. The definition of autonomy is found to be difficult to be fitted in one single sentence (Littlewood, 1999). Thus, there have been several terms associated with autonomy since the term was introduced. Before defining autonomy, it is necessary to make a clear distinction among the terms that have been associated with autonomy such as self-instruction, self-direction, self-directed learning, self-regulated learning and individualization.

Concerning self-instruction, two definitions stand out in language learning literature. Firstly, in a narrow sense, Benson (2006) states that self-direction refers to the use of printed or broadcast self-study materials. However, in a broader sense, it refers to learning in which learners undertake language study largely or entirely without the help of a teacher. When researchers argue that self-instruction is not a synonym of autonomy, they refer to the autonomy in broader sense which implies education without the help of a teacher.

Self-direction or self-directed learning is another term associated with autonomy. Autonomy was seen as a natural product of self-directed learning which is described as particular attitude to the learning in which learners accept responsibility for making decisions about their own learning process, that is, helping learners develop necessary skills which will enable them to act more responsibly in their learning process (Dickinson, 1987, Benson, 2001). In order for self-directed learning to occur, it was proposed that self access centers and learner training could create opportunities for the support and development of self-directed learning.

Self-regulated learning is a term used among the researchers who are particularly interested in the social, psychological and behavioral characteristics that contribute to academic success (Benson, 2001). Kollar and Fischer (2006) define self-regulated learning simply by saying that in self-regulated learning, learners are capable of self-regulating their learning, they quickly understand an existing problem, set realistic but challenging learning goals, create adequate plans to fulfill those goals, develop appropriate learning strategies, regulate their motivation and continuously monitor their learning process. However, Benson (2001) claims that self-regulation is somewhat narrower than autonomy and it has stronger influence on learner strategies than autonomy.

Finally, autonomy was closely associated with individualization in the field of learner-centred learning in the sense that both were concerned with meeting the needs of individual learners. However, when the term individualization was linked to programmed learning in which learners work their way at their own pace

through materials prepared by teachers, Riley (1986, cited in Benson 2001) pinpoints that in programmed learning, learners were deprived of the freedom of choice which plays a crucial role in developing autonomy.

Little and Dam (1998) state that independence has a very close association with the term autonomy. Thus, it is assumed that autonomy best develops when learners work alone. However, they argue that people are sociable and they depend on each other in many ways. Without social interaction, it is not possible to expect people to develop. Therefore, the independence that learners exercise through their developed capacity for autonomous behavior is always conditioned and constrained by their interdependence. In contexts of formal learning, learners necessarily depend on others even when they exercise their independence. This implies a classroom environment where learner and teachers cooperate and collaborate with each other so as to construct knowledge (p.1).

After making clear distinction among the terms that has been used as synonyms for autonomy, it is necessary to define what autonomy actually is. As stated earlier, there is no single definition for autonomy and thus, it is inevitable to come across several definitions of autonomy. To begin with, the concept of autonomy is originally defined by Holec (1981, cited in Blin 2004) “as the ability to take charge of one’s own learning” (p.377). In the following years, the term was defined by Dickinson (1987) in a broader sense as a situation in which the learner is totally responsible for all of the decisions concerned with his learning and the implementation of those decisions. In full autonomy, there is no involvement of a teacher or an institution and the learner is also independent of specifically prepared materials (p.11). This aspect of learner autonomy attracted less attention due the fact that the development of autonomy does not refer to the idea of learning without the aid of the teachers and institutions.

The definition of learner autonomy went on attracting the attention of researchers and the term was looked at from a broader perspective. Wenden (1991) came up with a broader definition of learner autonomy and she states that

In effect, *successful* or *expert* or *intelligent* learners have learned how to learn. They have acquired the learning strategies, the knowledge about learning, and the attitudes that enable them to use these skills and knowledge confidently, flexibly, appropriately and independently of a teacher. Therefore, they are autonomous (p.15).

Wenden here gives a big picture of autonomy putting the emphasis on the role of teachers who should help learners to learn how to learn and take responsibility for their own learning rather than depending on the teacher. Finally, Benson (2001) views autonomy as the capacity to take control of one's own learning, largely because the construct of "control" appears to be more open to investigation than the construct of "charge" or "responsibility" (p.47). A review of literature reveals that the definitions of autonomy mainly concerned with who is responsible for the learning and who takes control of the learning.

The review of the place of learner autonomy in language education and its definitions in the literature shows that learner autonomy in language education has a wider meaning and is viewed differently by researchers. However, in order to determine the scope of this study, it is necessary to propose a working definition which is compatible with the aim of the study. Fundamental to the argument to this thesis study is the assumption that learner autonomy in language education here is defined as acquiring learning strategies, the knowledge about learning and using these strategies and knowledge confidently, appropriately and independently both inside and outside the classroom, which will lead the learners to use language to learn and communicate, thereby demonstrating a capacity to take control of their learning.

Being the focal point of this study, knowing the characteristics of autonomous learners carries a great deal of importance. Therefore, the next section will explain who autonomous learners are.

2.4. Autonomous Learners

Having defined autonomy and conditions needed for the development of autonomy, it is also essential to clarify who autonomous learners are. Several

researchers defined autonomous learners in the light of their experiences and research. Like defining autonomy, suggesting a single definition for autonomous learners is difficult. The notion of “autonomous learner” has been associated with “good learner” by many researchers. To illustrate, Hedge (2000) views good learners as confident in their ability to learn, self-reliant, motivated and enthusiastic, aware of why they want to learn, unafraid of making mistakes, good risk-takers, good guessers, probably positive in their attitudes to the target language and culture, prepared to look for opportunities to come into contact with the language and willing to assume a certain responsibility for their own learning (p. 82).

The broad definition of good learners given above overlaps the definition of autonomous learners in many aspects. Dickinson (1987) describes autonomous learner as someone who takes responsibility for his/her own learning and can do so without teacher intervention or outside a formal curriculum. Later on, the definition of autonomous learner expanded and Dickinson (1993) defines autonomous learners as learners who know and identify what is going on in the classroom, who can formulate their own learning goals and make decisions about their learning, who are able to acquire necessary learning strategies and apply these strategies to their learning, and finally who can monitor and assess their progress.

Finally, Sharp, Pocklington and Weindling (2002) recognize autonomous learners from a different perspective. They say that autonomous learners are more likely to be motivated by things that are personally important to them, and less likely to be motivated by externally imposed rewards or threats. They clearly stress that the importance of intrinsic motivation is a key to autonomous learning, because it persists beyond the immediate circumstances and enables the individual to be truly self-motivated (p. 40).

In order for learners to become autonomous, it is necessary to present the necessary conditions for autonomy to develop. Therefore, in the next section, conditions for the development of learner autonomy will be explicated.

2.5. Conditions for the Development of Learner Autonomy

Autonomous learning is the learning in which the learner's capacity for autonomy is exercised and displayed. Autonomous learning requires various modes of learning which are characterized by particular procedures and relationships between learners and teachers (Benson, 2001). Therefore, in order for autonomous learning to occur, some conditions in teaching and learning process are needed. These conditions are summarized as learner training and learning strategies, increasing motivation, accepting responsibility and engaging in out-of-class study all of which are explained below.

2.5.1. Learner Training and Learning Strategies

When autonomy in language education emerged, it was mainly associated with self-access learning centers. It was believed that self-access language learning centers offering a rich collection of second language materials would expose learners to experimentation with self-directed learning (Benson, 2001). However, after being given too much attention to the association of autonomy with self-access, research and theory in language learning has taken a further step by focusing on learner training that is increasingly being advocated as a way of preparing learners to get the best out of autonomous learning (Wenden & Rubin, 1987).

Learner training has been exposed to different definitions by several scholars. Holec (1980, cited in Benson, 2001) views learner training as a basic methodology in which learners should discover, with or without the aid of other learners or teachers. Holec here implies that although learners might need others' help, the important thing about learner training was that it should be based on the self effort of the learners (p.10). A recent definition came from Hedge (2000) who states that learner training is a set of procedures or activities which raises learners' awareness of what is involved in learning a foreign language, which encourages learners to become more involved, active, and responsible in their own learning,

and which helps them to develop and strengthen their strategies for language learning (p. 85). Hedge here gives a broad and clear description of learner training. However, learner training has usually had a narrower aspect, that is, it has been linked to learning strategy training by researchers. In the 1990s, North American work on learning strategies and strategy training and European work on learner training combined the terms. The use of these terms such as strategy training or learner training no longer reflected a clear distinction in approach (Benson, 2001).

In order to help students to become more autonomous and improve learning outcomes, there has been much interest in training in the use of language learning strategies (Bull & Ma, 2001). Before defining learning strategies, it is necessary to understand the term strategy. Hsiao and Oxford (2002) explained that strategy implies conscious movement toward a goal (p.369). Then, learning strategies are operations employed by the learner to aid the acquisition, storage, retrieval, and use of information. More specifically, learning strategies are specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferrable to new situations (Oxford, 1990, p.8).

Researchers interested in learning strategies mainly focused on the good language learner and promoting learner autonomy. O'Malley and Chamot (1990) believe that good language learners use a wide range of strategies to help them gain command over new language skills. By implication, less competent learners should improve their skills in a second language through training on strategies evidenced among more successful language learners. Less competent learners should use strategies in the acquisition of different language skills and then transfer the strategies to similar language skills. Therefore, teachers have a dominant role in training the learners to learn strategies and being able to apply them when learning a new language. On the other hand, learning strategies are seen particularly important in the enhancement of learner autonomy because the use or adoption of suitable strategies let learners take more responsibility for their own learning (Dickinson, 1987).

Assessing the need for strategy training, Cohen (1998) points out that the main goal of strategy training is to empower students by allowing them to take control of their language learning. Therefore, he put forth three major objectives of strategy training: to develop the learners' own individualized strategy systems, to promote learners autonomy and learner self-direction and self-evaluation, and to encourage learners to take more responsibility for their own language learning. Furthermore, Wenden (1991) states that learner strategies aim to develop autonomous language learners in the sense that learning training activities are designed so that learners become not only more efficient at learning and using their second language but also more capable of self-directing these endeavors (p.8). According to Krashen (1987), learning is conscious knowledge of language rules, and normally it does not lead to conversational fluency, and learning occurs through formal instruction. However, acquisition occurs unconsciously and spontaneously, leading to conversational fluency, and stemming from naturalistic language use. Language learning strategies contribute to all parts of the learning-acquisition continuum (Oxford, 1990).

Van Lier (1996) has taken the aspect of gaining learner strategies through learner training a step further by saying that learning to learn (or learner training, as it is often called) is concerned with the following aim:

....the aim is to encourage students to develop lifelong learning skills. These skills incorporate the ability to deal with the unexpected, to make informed choices, to develop sharp observational skills, and to construct useful knowledge in one's interactions with the world, while guided by internal values, convictions, and reasons (p.91).

Dam (2003, cited by Wright in Coleman and Klapper, 2005) claims that it took quite a long time to understand the role of the teacher in getting students to play an active part in their own learning. As Wright (cited in Coleman & Klapper, 2005) points out, it is not sufficient to expect learners to take responsibility adding that the teacher needs to prepare them to take charge of their own learning and to set the environment with appropriate learning opportunities that also incorporates establishing suitable tasks and activities (p.135).

The review of learner training and learner strategies reveal that teachers also play a crucial role in helping and encouraging learners to acquire necessary strategies so as to gain autonomy in their learning process. This seems highly significant due to the fact that because of conditioning by the culture and the education system, as Oxford (1990) says, students tend to be passive and they are accustomed to being spoon-fed. According to her, they like to be told what to do and they do just the things necessary to get a favorable grade even if they fail to develop useful skills in this process. Such attitudes and way of behavior make learning more difficult and a change seems necessary. Thus, she adds that teaching new strategies to students will achieve very little if students are not willing to take greater responsibility for their own learning. Therefore, best strategy training not only teaches language learning strategies but also deals with feelings and beliefs about taking on more responsibility for learning. Thus, although this process develops gradually and takes time, in time, students start to develop more confidence, involvement and proficiency (Oxford, 1990).

There has been several language learning strategy classification systems. Rubin (1981, cited in Hsiao and Oxford, 2002) came up with six direct strategies: clarification/verification, monitoring, memorization, guessing/inductive inferencing, deductive reasoning and practice. In the following years, O'Malley and Chamot (1990) designed three broad types of learning strategies: cognitive, metacognitive and socio-affective. Although it received great attention, Oxford's (1990) Strategy Inventory for Language Learning (SILL) remained the most popular one among the researchers and language educators. This stems from the fact that Oxford's (1990) Strategy Inventory for Language Learning (SILL) has been developed for English language learners and it has been used extensively by researchers throughout the world, indicating high validity, reliability and utility (Oxford & Burry-Stock, 1995). The SILL questionnaire measures the frequency with which a student uses memory, cognitive, compensation, metacognitive, affective and social strategies. Oxford first divides learning strategies into two groups, direct and indirect strategies. Direct strategies consist of memory

strategies, defined as strategies helping students store and retrieve new information, cognitive strategies, described as the strategies enabling students to understand the new language by many different means and compensation strategies, known as strategies allowing students to use the language despite their often large gaps in knowledge. Indirect strategies include metacognitive strategies, allowing students to control their own learning, affective strategies, regulating emotions, motivations and attitudes, and social strategies, helping students to learn through interaction with others.

In order for students to become autonomous learners, they should be introduced with all of the strategies. Whether language learning strategies can be taught to learners or not has been discussed among researchers for a long time. It is stated that language learning strategies can be taught to learners. However, how to teach and how to train learners have been another significant issue among language educators. Grenfell and Harris (1999) suggest that strategy instruction should be integrated into everyday lessons and they should be taught explicitly through collaborative learning. They also stress that teachers should make use of every possible opportunity to integrate strategy instruction in the target language. According to Grenfell and Harris (1999), it is also important to take the level and the needs of the learners into consideration (pp. 98-106).

There have been some studies conducted to investigate the role of language learning strategies in promoting learner autonomy. One of these studies was carried out in Taiwan. Yang (1998) directed a program designed to promote learner autonomy among university students for four years. He combined language learning strategy instruction with the content of L3 course, which helped him to inform the students about knowledge about language development and promote learner autonomy. Due to the fact that more than half of the students responded positively to the instruction, he came to the conclusion that helping learners acquire language learning strategies leads learners towards developing autonomy as they develop their own self-direction in their learning process.

2.5.2. Motivation and Learner Autonomy

There has been a lot of research done into the place of motivation in learning a language. Motivation is considered by many researchers to be one of the main determining factors in success in learning a language (Oxford & Shearin, 1994). Johnson (1979, cited in Schmidt, Boraie and Kassabgy, 1996) refers to motivation as the tendency to expend effort to achieve goals (p.11). First, many researchers treated motivation as a single construct. However, it was found that it is important to look at motivation not as a single construct but as a multifactor trait. Integrative and Instrumental motivation, based mainly on the work of Gardner (1985, 1989, cited in Oxford, 1996), are the most popular constructs regarding autonomy. Instrumental motivation results from the fact that learners want to learn the target language to pass examinations or for economic or social advancement. However, integrative motivation is linked to the desire to learn a language because learners are attracted to the target language culture or group or the language itself. Intrinsic and extrinsic motivations are other models of motivation and both are well known in psychology. Extrinsic motivation is a type of motivation resulting from an external reward that may be obtained whereas intrinsic motivation is demonstrated when people do something because they get rewards enough from the activity itself (Schmidt, Boraie and Kassabgy, 1996).

Motivation has long been linked to learner autonomy in the sense that both are centrally concerned with learners' active involvement in learning. Dickinson (1987) claims that self-instruction is concerned with helping and encouraging learners to develop their own intrinsic motivation. She means here learners' continued willingness to put learning the target language at a high level of priority among all the demands on her time. She continued stressing the importance of motivation in learner autonomy by stating that setting goals, being involved in decision making, having freedom to use preferred learning techniques and cooperative learning have greater effect on motivation (pp. 32-33). Furthermore, Ushioda (2006, cited in Hsiao and Oxford, 2002), who has made major

contributions to the fields of both autonomy and motivation, links motivation to self-regulation, arguing that self-regulated learning can occur only when the ability to control strategic thinking processes is accompanied by the wish to do so (p.29).

Especially, intrinsic motivation is linked to learner autonomy, which is emphasized by Ushioda (2000). Ushioda (2000) highlights that the engagement of learners' intrinsic motivational processes has a significant functional role to play in fostering their autonomy (p.121). Intrinsic motivation is the motivation that learners normally bring to learning process. This type of motivation is associated with personal interests, the subject matter and activities that learners enjoy, the areas of knowledge they want to develop, the challenges they want to tackle and the skills they want to master. Moreover, intrinsically motivated learning is thought to be contextualized learning in which skills are enhanced in their natural context with the help of regular practice (Ushioda, 2000).

Finally, research shows that motivation directly influences how often students use language learning strategies which play a crucial role in developing autonomy (Oxford & Shearin, 1994). Okado, Oxford and Abo (1996) conducted a study to assess the degree to which motivation is related to the use of learning strategies in language learning. Their study proved that total strategy use was significantly associated with intrinsic motivation, effort, and desire to use the language. This meant that overall strategy use is directly tied to motivation and vice versa. Additionally, Wharton's (2000) study, revealing that the degree of motivation had the most significant main effect on the use of language learning strategies, supports that of Oxford and Nyikos' study (1989, cited in Okado, Oxford and Abo, 1996)) of over 1000 university students learning a variety of FLs in the United States (p.231). In both of the studies, the more motivated students, the more frequently they reported using learning strategies.

It is clear that motivation, particularly intrinsic motivation, contributes to the development of learner autonomy. However, besides the intrinsic motivation of learners, external factors such as learning environment including the teacher,

the task, the materials used, and evaluation procedures are thought to influence learner motivation (Raby, 2007). Such external factors are important since these are the factors that determine whether learners will improve their intrinsic motivation or not.

2.5.3. Responsibility and Learner Autonomy

It is necessary for learners to be able to enhance their language proficiency on their own since they will not always find a teacher around to assist them. Thus, it seems important for learners to understand that they have the power to improve their own learning by taking responsibility for it (Poe-ying, 2007). Autonomy and responsibility are seemingly very much interrelated. It is known that one aspect of the definition of autonomy is taking responsibility for one's own learning. Therefore, learners are expected to create a personal schedule for their learning process and establish the planning, performing, pacing, monitoring and evaluation of the learning process by the help of this schedule. Additionally, they should be actively engaged in setting necessary goals, defining content and setting up an evaluation mechanism for evaluating their progress.

Teachers' responsibility here differs from the responsibilities of traditional classroom teachers who mainly control and dominate learners. When learners are encouraged to take responsibility for their own learning, teacher's reciprocal responsibility is to ensure that learners have effective strategies for planning, performing, and monitoring their independent learning (Yalden, 1987). The transfer of responsibility from teachers to learners ensures many benefits not only in the school environment but also outside the school, in learners' own real life. Therefore, courses designed to promote learner autonomy must encourage learners to set personal goals, monitor and reflect on their performance, and modify their learning behavior accordingly (Cotterall, 2000).

Van Lier (1996) emphasizes that learners who want to develop autonomy must be able to make significant decisions about what is to be learned, as well as how and when to do it. This will lead learners to accept more responsibility for

their own learning, which will encourage them to take a further step in becoming autonomous in their learning process. However, taking responsibility requires learners to act independently and in cooperation with others.

2.5.4. Out-of-Class Learning and Learner Autonomy

As stated earlier, learner autonomy does not only aim to equip the learner to function better in the classroom but also focuses on helping learners to continue their education outside the classroom. Field (2007) stresses the importance of continuing learning outside the classroom by stating that true empowerment consists of the freedom to learn outside the teaching context and the ability to continue learning after instruction has been completed. Therefore, it is strongly believed that teachers need to train learners to acquire information not only in the classroom but also outside the formal teaching and learning process. Especially in language education, the work done by learners outside the classroom has been thought to be crucial. This stems from the fact that language learning is a slow long-lasting process which requires considerable time and effort on the side of learners.

Out-of-class learning has entered into the field of autonomy in language education recently and it is closely associated with learner autonomy (Benson, 2006). There has been some research conducted to find out the role of out-of-class learning which implies that successful language learners are always in search for opportunities for learning not only inside the classroom but also outside the classroom. Gao (2008) analyzed the comments of a group of learners on their participation in an English corner on the Chinese mainland. English corner is a social community where the participants could find supportive peers and self assertion opportunities. Gao reported that learners' participation in the community enhanced their autonomous learning and fostered subtle changes in their identities. More specifically, this learning activity helped the learners to develop community cohesion among themselves and motivated their autonomous learning efforts from a humanistic point of view.

Finally, Sharp, Pocklington and Weindling (2002) conducted a study called study support aiming to provide learners with outside classroom activities. The study revealed that the learners participating in outside activities developed their metacognitive strategies and had increasing intrinsic motivation which fostered the sense of autonomy in the learners.

Encouraging learners to engage in out-of-class learning seems to be vital when learning a language. Learners aiming to develop autonomy in their learning need to have creative efforts to seek language learning and use opportunities beyond the classroom. By the help out-of-classroom learning, learners also make use of and practice what has been taught in the classroom. Reviewing and practicing are seen as indispensable parts of language learning.

The next part will briefly focus on learner autonomy and its development in CALL.

2.6. Learner Autonomy and CALL

The conditions given above are believed to set the suitable ground for the development of autonomy. However, expecting learners to develop autonomy in their traditional classrooms where teachers control and dominate learners allowing them to take almost no responsibility for their own learning do not seem feasible. Recently, technology in education has gained great popularity among language educators due to the fact that new technological advances such as computers and the Internet offer an appropriate environment where learners can develop autonomy.

Autonomy is both independence and interdependence. Independence means taking responsibility for one's own learning, setting goals and making decisions and self-evaluation of one's own progress in learning process. However, learners perform their independence within a specific sociocultural context where independence, through socialization and interaction with teachers and peers will impact on the levels of control they exercise and develop (Benson, 2001). Therefore developing control cannot be seen only as the development of

individual autonomy but also as the development of a social autonomy with which a group of learners will altogether take responsibility for their learning (Blin, 2004).

However, thanks to new technological advances such as computers and the Internet, learner autonomy has gained a new dimension. Shetzer and Warschauer (2000, cited in Blin, 2004) connects the concept of learner autonomy and technology as in the following:

Autonomous learners know how to formulate research questions and devise plans to answer them. They answer their own questions through accessing learning tools and resources on-line and off-line. Moreover, autonomous learners are able to take charge of their own learning by working on individual and collaborative projects that results in communication opportunities in the form of presentations, Web sites, and traditional publications accessible to local and global audiences. Language professionals who have access to an Internet computer classroom are in a position to teach students valuable lifelong learning skills and strategies for becoming autonomous learners (p. 379).

Shetzer and Warschauer (2000, cited in Blin, 2004) imply that when becoming autonomous learners, it is also important to work cooperatively and collaboratively not only with teacher but also with other learners. To do this, it is believed that computers and the Internet and the tools that they offer such as e-mails, discussion forums and online chats provide the language learners with a sociable and collaborative authentic environment where learners develop autonomy and take increasing responsibility for their own learning.

In order to see the potential benefit of computers and the Internet in promoting autonomy in language education, this thesis study was conducted. Before focusing deeply on the contribution of the computers and the Internet to the development of autonomy, it is necessary to define technology related terms in language education such as CALL, CMC and CMC tools. Thus, in the next section CALL and CMC will be explained.

2.6.1. A Historical View of CALL

This section first focuses on the definition of CALL and then provides information about CALL before and after the invention of the Internet.

2.6.1.1. What is CALL?

English Language Teaching has undergone several paradigm shifts and each shift brings in a new teaching approach which represents a new ideology and reflects the needs of communities. (Lee, Jor and Lai, 2005) Computer – Assisted Language Learning (CALL), defined as “the search for and study of applications of the computer in language teaching and learning” (Levy, 1997, p.1), has been one of the developments in language teaching and learning recently. The application of CALL in education can be divided into two periods: before and after the invention of the Internet and these periods are described below.

2.6.1.1.1 Before the Invention of the Internet

Warschauer and Healey (1998, cited in Benson, 2001) divided the history of CALL into three phases: behaviouristic, communicative and integrative. Behaviouristic application of CALL, which was also the earliest application of CALL, was restricted to drill and test knowledge of vocabulary and grammatical structure either through multiple choice exercises or by matching learner input to pre-programmed answers. This application of CALL proposed a degree of control by providing the learners with a choice of materials and learners were allowed to try again when they gave a wrong answer. Moreover, learners found an opportunity to work at their own paces; however, these applications of CALL remained as habit formation that is one of the principles of behaviourism (Benson, 2001).

In the 1980s, as Benson (2001) says, CALL entered a communicative process in which the principles of communicative language teaching were used in the application of CALL. This period emphasizes that text reconstruction, game

and simulation packages were designed to engage students in problem-solving activities that would stimulate cognitive involvement with the target language and spoken communication with other students engaged in the CALL task. Finally, the integrative phase of CALL occurred and it mainly focused on the use of multi-media, hypermedia and interactive technologies to trigger the integration of the skills (Benson, 2001, p.137).

2.6.1.1.2. After the Invention of the Internet

With the introduction of the Internet defined by Pritchard (2004) as “a very large computer network that is made up from other smaller networks of computers” (p.6) , CALL has entered a new era as the Internet, thought to be an asset, offering a wide range of facilities, enabling users to obtain information and resources to communicate and to publish information. Internet was first introduced by The Advanced Research Projects Agency (ARPA), an arm of the United States Government working mainly on defence-related technological developments (Pritchard, 2004).

With the help of advanced technology, especially the Internet, usually abbreviated to the Net, many things have changed in communication revolution. Dudeney (2000) points out that these days, however, things have changed for the better, and the Net is now a thriving community with many millions of people exchanging information, ideas and opinions. The development of easier connections, more user-friendly software and cheaper access has opened up the ‘information superhighway’ to everyone from young children at home and at school to professionals in all fields and walks of life (p.1). It is clearly understood from what Dudeney says that thanks to the Internet, people from all ages find an opportunity to reach out people all around the world, which resulted in more exchange with minimum cost.

2.7. CMC within CALL

Computer Mediated Communication, defined as the transmission and reception of messages via computer Networks, has evolved from sending and receiving text messages to using multimedia components in the process of human-to-human interaction (Khine, Yeap, Lok, 2003, pp. 115-116). CMC, also known as Web 2.0, describes the World Wide Web technology and web design that aims to enhance creativity, information sharing, and, most notably, collaboration among users. Loannou-Georgiou (2005) stresses the importance of computers as a means of communication among young people not only because CMC used for language learning provides learners with real communication in the classroom and its great motivation power but also computers and the Internet grab the attention of young generation by providing them with the tools of their interest (p.158).

CMC is divided into two categories depending on the time of the communication that takes place. Synchronous type of communication that is direct communication, where both the sender and the recipient involved in the communication are present at the same time. Bowles (2004) states that the most common form of synchronous electronic communication is real time two way text-based online chat, which is widely used in CALL. However, there are other forms of synchronous electronic communication incorporating virtual classrooms, imitating a traditional classroom through using CMC such as video-conferencing or the use of shared electronic whiteboards, which allows learning materials to be created and modified in real time, either by the instructor or the learners (Bowles, 2004, p. 4).

The other type of CMC is asynchronous communication that does not require all participants involved in the communication to be present and available at the same time. This type of communication is different from synchronous communication in the sense that Bowles (2004) states as in the following:

Unlike synchronous communication, learning asynchronous communication allows participants to control their own timetables and fit learning around their other commitments. This is an important asset,

especially for adult learners who lead complicated and hectic lives. Like synchronous tools, many of the technologies used in asynchronous e-learning also permit two-way communication between learners and instructors, or multi-directional, collaborative communication among learners themselves (p.5).

The most common asynchronous communication tools are electronic mail, blogs and message boards.

For the past decades, together with the use of other information and communication technology (ICT) tools, educators have explored various approaches in the use of CMC in education process (Khine, Yeap, Lok, 2003). By the help of technological developments, CMC applications started to be more efficient and effective. To illustrate, online discussions have become one of the common applications in CMC learning classroom.

Most of the research conducted in this area focuses on the pedagogical aspects of CMC particularly on the use, strategies, effectiveness and the integration of the new technologies in teaching and learning. Furthermore, some studies were aimed to find out different perspectives of interaction like the quality of participation, interaction and collaborative or group learning (Khine, Yeap, Lok, 2003). In this thesis study, CALL was used to design the classroom environment where learners found opportunities to develop autonomy and CMC tools were mainly used both inside and outside the class. Therefore, before reporting the findings, it is better to focus on the definition of both synchronous and asynchronous CMC tools.

2.7.1. Synchronous CMC Tools

As mentioned before, synchronous tools allow real-time communication and collaboration at the same time but in different places. Synchronous tools have the advantage of being able to connect people instantly and at the same point in time. Additionally, synchronous tools are especially useful for group work and collaborative work. Based on the media involved, synchronous communication can be divided into two groups: Internet chat and Internet conferencing. Internet

chat tends to be text-based whereas Internet conferencing can be in multimedia (Wang & Gearhart, 2006, p.76).

2.7.1.1. Internet chat

Internet chat has become quite popular in recent years due to the fact that it is easy to use and practically free in most contexts. Wang and Gearhart (2006) expect Internet chat to remain a popular communication tool in the Web environment due to the fact that portable communication devices and wireless technology have become increasingly popular. Thanks to instant responses, internet chat can become a powerful tool that effectively builds interpersonal relationships and address issues that need instant exchange of information and immediate feedback (p.76).

Furthermore, Dawley (2007) emphasizes the strengths of chat and instant messaging by stating that they allow real time discourse and dialogue; they are good for group work and team learning, and feedback can be given immediately. Furthermore, they provide learners with meaningful interaction via two-way conversation and students usually like engaging in such meaningful interaction. Communicating in chat environments are thought to be less frightening than talking in a traditional classroom and this helps shy students to become more willing to participate. Finally, chats can be recorded and the transcripts can be made available to the class or instructor so as to be reviewed in future.

Chat rooms seem to have a variety of benefits to language learners by allowing learners to interact in an authentic environment in real time with people around the world. Furthermore, internet chat promotes active involvement and it fosters learner autonomy due to the fact that the teacher's role is minimized and the learners find an opportunity to work on the target language skills in a sociable environment. Popular chat tools incorporate Yahoo Messenger, MSN Messenger and ICQ and all these tools are defined below.

2.7.1.2. Internet Conferencing

Unlike Internet chat, which is generally restricted to text content only, Internet conferencing has potential to use multimedia. Multimedia conferencing can become more effective with the help of audio and video support. Wang and Gearhart (2006) say that whiteboard and application sharing are great tools in Internet conferencing:

By using a whiteboard, multiple users across a network can work together in a shared graphic interface that is simultaneously displayed and updated on every participant's screen. In Internet conferencing, participants can share data and applications. Data sharing can be done by exchanging files through file transfer protocol (FTP). Application sharing requires all participants to have the same application software to process the data shared, and is therefore also called program sharing (p.77).

Compared with text chat, Internet conferencing is thought to be a more effective tool for the instructor to use to have online office hours because it helps the instructor to explain and demonstrate things in multimedia and via application sharing. Regarding the development of learner autonomy, audio and video conferencing have more potential to push the limits of autonomy thanks to multiple users connecting to each other to communicate and perform a task.

2.7.2. Asynchronous CMC Tools

As stated before, asynchronous tools allow communication and collaboration over a period of time in different time and different place. These tools enable people to connect together at each person's own convenience and own schedule. Wang and Gearhart (2006) state that when immediate feedback is not needed, asynchronous communication is often more effective for learning tasks that require focused discussion, reflective thinking, and negotiation for team solutions (p.23). It seems that asynchronous tools are beneficial for continuing dialogue and collaboration over a period of time and with the help of asynchronous tools, resources and information are accessible all the time.

Moreover, asynchronous tools are advantageous to keep track of the history of the interactions of a group, allowing for collective knowledge to be more easily shared and distributed. The most common asynchronous tools are e-mails, discussion forums and blogs and they are described below.

2.7.2.1. E-mails

An e-mail, which stands for electronic mail, is a written message that is sent across the phone lines from one computer to another. Among CMC tools, e-mail has gained great popularity because of its numerous advantages. Dawley (2007) highlights the importance of e-mails by saying that emails enhance individual connection as well as a sense of community as long as they are used effectively. Furthermore, they are easy to monitor and learners can attach documents or files and easily download attached documents or files. Moreover, learners have privacy which plays a crucial role in increasing student involvement and motivation. E-mails are cheap and they are easily used and accessed (p. 52).

Over the past years, e-mail has been used with many different purposes in foreign language classrooms. Gonglewski, Meloni and Brant (2001) stress that e-mails extend language learning time and place, provide a context for real world communication and authentic interaction, expand topics beyond classroom-based ones, promote student-centered language learning, encourage equal opportunity for participation, and connects speakers quickly and cheaply. Considering all these benefits of e-mails, language teachers started to see it as an asset and indispensable part of their teaching. E-mail has become the principal tool for maintaining interactions between students and teachers in many settings (Brooks, 1997).

O'Dowd (2003) believes that intercultural learning is often thought to be an automatic benefit of e-mail exchanges between groups of learners in different countries and at the end of a year-long e-mail exchange between Spanish and English second year university language learners, O'Dowd (2003) reports on the ability of the students to build up a personal relationship with their partners via e-

mail, their sensitivity to their partners' needs and communicative style, and their ability to produce engaging correspondence, which lead to the successful development of intercultural communicative competence in the exchanges (p.139). This indicates that e-mails also have the potential to offer an independent learning environment which supports the underlying principle of learner autonomy.

2.7.2.2. Discussion Forums

A discussion forum system is essentially an electronic message database with a Web interface where people can log in and post messages (Wang & Gearhart, 2006). In most discussion forums, people who want to post their ideas to the forum page have to register by giving their email address and names. Dawley (2007) argues that discussion forums can serve as the public space for coming together and they offer a great opportunity to build a community, create connection, engage and empower students in online education. Peer learning is also encouraged in the sense that learners can view and respond to the work of others in a discussion forum. Furthermore, she claims that learners have more time to reflect, research and compose their thoughts and adds that their thinking and writing skills are developed. According to her, they are easy tools for group correspondence and building a class community by prompting discussion on course topics. Most importantly, all students can engage in a discussion. Therefore, everybody can participate in discussions equally (p. 72).

It seems that discussion forums save information posted on particular topics for other people to see at any time, which creates a discussion environment. Participants have the freedom to post their ideas as many times as they want and because discussion forums are not real time, any argument is avoided. Moreover, before posting their opinions, participants have time to think and revise for what they have written and this results in high-quality discussion among the participants. In one of their studies, Sadler and Eroz (2008) conducted a training program which aimed to train language teachers in the theoretical and practical

applications of forums. The results of their training program revealed that the students were really creative and they suggested different ways of using message boards in their own language teaching. The comments and suggestions of the students had examples which have a focus on encouraging real interaction with participants outside the classroom through the use of authentic materials. All these opportunities foster autonomy since discussion forums create a social community where learners develop a sense of belonging and communicate their feelings and ideas about the given topics and comment on their friends' posts.

2.7.2.3. Blogs

A blog is a web-based tool that has gained great popularity among language educators in recent years. Dawley (2007) describes a blog as “a web page that serves as personal journal for an individual” (p.205). A weblog can serve as a hierarchy of text, media objects, images and data, arranged chronologically, that can be viewed in an HTML browser. Barton (2005) says that blogs are online journals or diaries, though many bloggers use their blogs as a place to map research projects. Bloggers identify themselves either by name or a pseudonym and maintain a strict hierarchy between writers and readers (p.178).

It is easy to access and use a blog page since it requires little html knowledge. Furthermore, being one type of new technology, a blog page has the potential to attract the attention of students who spend most of their time on computers and the Internet. As far as shy and quiet students are concerned, like other CMC tools, blogs also encourage quiet and shy students to participate. Moreover, because of its easy accessibility at anytime and anywhere, blogs enable students to work at their own convenience and determine their own pace and level of contribution. This gives students more control over their own learning and the ownership of a personal space, which develops autonomy in learning process. Dawley (2007) finds blogs advantageous as blog entries are dated, and are usually open to comments from the outside world. One of the most important benefits of blogs, as she thinks, is their potential to empower the writer through the writing

process. That is, a learner can own and direct the content of the blog determining the direction of the blog. This helps them to develop higher-order thinking skills as the learner constructs knowledge over time. Finally, Dawley puts emphasis on the potential that blogs let the learner become a global citizen (p. 205-206). All these potential benefits of a blog page have been seen by language teachers and blogs are being widely used in language classrooms with many different purposes depending on the needs of the students.

The next section will discuss the pedagogies used in CALL environments.

2.8. Pedagogies used in CALL

It is believed that the term CALL has become synonymous with TELL (Technology Enhanced Language Learning) due to extensive use of technology in many different areas of education and creation of pedagogic approaches and methodologies in which computer is used as a tool rather than a 'teaching machine'. This incorporates different pedagogic approaches and activities such as the exploitation of internet resources, the development and use of Virtual Learning Environments (VLEs), speech recognition and language processing. The Internet and especially e-mail have made the use of computers second nature to teachers and learners alike and it has become an indispensable part of language learning. However, it is hard to believe that technology will guarantee development in target language learning. Therefore, careful integration and a clear focus on precise language learning needs are essential when using computers and the Internet (Thompson, cited in Coleman & Klapper, 2005).

In designing CALL tasks, task goals, learners' activity, software design, and the number, the needs, the levels and roles of learners should be taken into consideration. When designing a CALL task, one should consider its language learning potential, that is, to what extent the CALL activity contributes to language learning. Another important issue is the learner fit that refers to the appropriateness of CALL materials to learners' linguistic ability level and individual characteristics. Meaning focus which means attracting the attention of

the learners towards the meaning of the language required to fulfill the task and the authenticity of the CALL activity which means how appropriate the task is to engage the learner in outside world are other important aspects. Moreover, the practicality of CALL activities seem to be significant as the teacher and the students should implement the activities in the constraints of a particular language program. Finally, the positive impact of a CALL activity plays a crucial role in referring to the effects of the activity beyond its language learning potential (Chapelle, 2002). Chapelle explains the positive impact of CALL activities as in the following;

Ideally, classroom language learning tasks teach more than language; they should help learners develop their metacognitive strategies (Oxford, 1990) in a way that allows them to develop accountability for their learning in the classroom and beyond. They should engage learners' interest in the target culture to help develop their willingness to communicate in the L2. They should learn pragmatic abilities that will serve them beyond the classroom, which, Warschauer (1998) has argued, includes situations in which electronic communication is normal (Chapelle, cited in Kaplan, 2002, p.500-501).

Moreover, Doolittle (1997) comes up with the following primary pedagogical recommendations within the boundaries of constructivism and online education. He first emphasizes the importance of authentic and real-world environments where learning should take place incorporating social negotiation and mediation. Content and skills should be relevant to the learner. Regarding the assessment of the learning process, he suggests formative assessment, which informs future learning experiences. Furthermore, teachers acting as guides and facilitators of learning should encourage learners to become self-regulatory, self-mediated and self-aware. Finally, the content of learning should be presented with multiple perspectives and representations (pp. 6-7).

There are several applications of CALL; however, it is hard to expect all of those applications to have been successful due to some potential problems that CALL causes. The Internet is an asset in our lives but it is a fact that not everybody in the world has access to the Internet, which is also made clearer by

Murray (2000). Especially, one example that Murray has given has been a striking one for educators. Myra, a Navaja middle school student, entered an on-line competition and won a computer but the company was quite surprised to find that there wasn't a telephone line in her house to make the Internet connection possible. It is quite saddening to know that there are still a lot of people who are deprived of computers and the Internet in such a technological world where computers have become a medium of communication. Designing online courses or integrating the use of computers and the Internet into the curriculum of an institution would be very difficult due to the cost of maintaining and upgrading such courses or curriculum (Davidson-Shivers & Rasmussen, 2006).

Moreover, teachers also play a crucial role in such kind of classroom as they should understand the technology and its potential before expecting learners to participate in computer mediated language teaching and learning process. Therefore, in that case, administrators may find it difficult to motivate the instructors to teach online or use computers and the Internet in their classrooms (Davidson-Shivers & Rasmussen, 2006). Moreover, McCormack & Jones (1998) point out that implementing CALL requires the students to be active and self-directed participants, which is quite different from a traditional classroom where the learners are passive recipients of knowledge. This trend in web-based education, as McCormack and Jones think, might frighten the teachers as they would see it as a possible threat over their control in the classroom.

Before setting such kind of an environment, learners should also be given enough guidance to avoid the problems that the learners might face and in order not to let them get confused by such a developed technology. However, as Davidson-Shivers & Rasmussen (2006) state, getting the best out of this training depends on the motivation and the willingness of the students. They might not find this web-based teaching as attractive and they may feel themselves isolated and helpless when working on the computers and the Internet. This isolation may result in frustration (Davidson-Shivers & Rasmussen, 2006).

Murray (2000) also argues that communicating through the Internet reduces nonverbal and paraverbal cues such as gestures and intonation, which might lead to misunderstandings and poor development of the intended communication. It would be a good way to expose the learners to the target language outside the classroom via the tools of the Internet if the learners don't have the chance to visit the country where the language that they are learning is spoken; however, they should be made aware of such problems that they might encounter; otherwise, they would be discouraged from working on the computers and the Internet. Many educators like the ability to look into the eyes of the students as they teach. Thus, many educators believe that the lack of physical cues in web-based instruction is one of the disadvantages of CALL (McCormack & Jones, 1998).

Computers and the Internet are not a magic wand that always contributes to teaching and learning. If the implementation of CALL is not appropriate for a particular instruction program, it may decrease the quality of learning experience and this may result in not reaching the intended objectives of the program. Finally, computers and the Internet are seen as inhuman. Therefore, learners would see their learning as a superficial process and would not take it serious (McCormack & Jones, 1998). There are some learners who feel themselves more comfortable when they talk to the lecturer and to each other.

Despite possible problems of CALL environments, computers and the Internet provide learners with a learning experience in which learners have opportunities to interact and negotiate meaning with an authentic audience producing varied and creative language. Additionally, CALL environments support learner autonomy as learners benefit from not only independent learning experience but also interdependent learning experience in a sociable environment.

The next section will present the necessary information about the effectiveness of CALL environments on learner autonomy and studies conducted to find out the development of learner autonomy in CALL environments.

2.9. The Effectiveness of CALL on Learner Autonomy in Language Learning and Studies on Learner Autonomy in CALL Environments

Developments in Computer Assisted Language Learning applications particularly benefited from interactivity which not only exploited better use of the increasingly available network technology but which was also seen as being perfectly suited for autonomous learning (Hémard, 2006). Sagarra and Zapata (2008) express that courses that have CALL components promote student autonomy and empowerment. That is, critical thinking, student motivation and achievement are enhanced by the opportunity of taking control over learning, which lets students choose the sequence of what they learn, negotiate meaning via the computer and suit their personal learning style (Sagara & Zapata, 2008).

CALL contributes to the development of autonomy in many aspects, particularly, exposing learners to a wide range of target language input and allowing them to use this input as output in a sociable environment with people all around the world. The problem that teachers commonly face in a language classroom is that learners do not know what to do out of a classroom and even sometimes they do not know how to absorb the knowledge provided in the classroom. They mostly feel secure inside the classroom as they are completely dependent on teachers. However, it is believed that a learner should also be taught what they should do outside the classroom as learning is an ongoing process and requires the learners to work on their determined goals. Murray (1999) believes that advancements in technology enable educators to foster learner autonomy by encouraging agency and providing learners with the tools they need in order to make decisions and take action in harmony with their personal identity (p.306). For instance, if learners are provided with a website incorporating many different CMC tools, learners arrange their own meeting times and decide what they want to do. Moreover, with the help of a website, learners are encouraged to cooperate and share with others and then successfully move from relying on the teacher for

answers to engaging with the website and finally, with each other to obtain solutions to problems.

Murray (1999) highlights that CMC tools would offer authentic, safe environments in which learners could become proficient in using the target language to carry out the multitude of activities constituting everyday life. Moreover, by the help of these tools, researchers find opportunities to observe identity, individualized strategies, metacognitive awareness and personal autonomy at work, which leads to an even greater understanding of second language acquisition processes (Murray, 1999).

The application of CALL tools for L2 teaching and learning has given rise to a number of studies that investigated the impact of the new tools and CALL environments on learner autonomy with mostly positive results. One of these studies was conducted by Ushioda (2000) who examined the effective dimension of tandem learning via e-mail. Tandem learning is defined as reciprocal language learning programme in which you are paired with a native speaker of the target language to learn together. Her study revealed that the affective dimension of learning experience has a potentially powerful role to play in promoting the practices of autonomy such as increasing motivation and reciprocity on which successful tandem learning is founded.

The role of technology in promoting autonomy has been of interest over the years and it has been claimed that technology enhances autonomous language learning by encouraging learners to take responsibility for their learning, that is, responsibility is transferred from teachers to students. Technology, especially multimedia, is believed to support different learning styles, that is, computers and the Internet provide a wide range of resources to independent learners and that certain software packages can offer a complete curriculum for language learning (Healey, 2002). Language learners tend to feel insecure when they are on their own as they do not really know how they can best learn. However, by providing the necessary guidance, technology can do much more within an environment

designed to foster independent learning. Healey (2002) comments on the relation between autonomy and technology as follows;

Where learners are also in language classes, independent work can be linked closely to course curriculum. Where learners are working on their own, they will need suggested paths through material as well as language data to work with. Facilitators serve an important role by helping learners assess where they are and understand where they need to go next, helping the learners organize their learning and be motivated to continue. It's easy to be passive, so learners may need help in setting and accomplishing tasks that require production. Facilitators also help organize community, setting up groups, providing logistics for group projects, and making the links between independent study and classroom and home (p. 3).

Educators have recognized the need for students to develop skills for lifelong learning and the Internet is seen as a potential tool to encourage learners to take responsibility for their own learning. With the help of wide range of learning resources on the Internet, learners become active participants in their quest for knowledge and learners learn to make decisions about their learning needs, to find information, to build their own knowledge base (Heide & Stilborne, 2004). It seems that computers and the Internet are thought to offer students a social environment, which contributes positively to the development of the target language, and also has potential to contribute to the development of many aspects of learner autonomy.

Another important study which yielded important results regarding autonomy and CALL came from Shield, Weininger and Davies (1999), who concentrated on the pedagogical aspects of one type of synchronous text-based tool, MOO (Multi-User Domain, Object-Oriented), examining how it may be employed to support and develop autonomous (language) learning strategies. With regard to the results of the study, they concluded that language learners can benefit from the application of CMC tools in several ways in a language classroom. Asynchronous tools enhance metacognitive learning strategies while synchronous tools promote cognitive learning strategies, and learner confidence in

L2 production appears to be increased with the use of both synchronous and asynchronous CMC tools.

Finally, besides the positive contribution of CALL environments and CMC tools to the development of learner autonomy regarding increasing motivation, encouraging learners to take responsibility for their learning and developing language learning strategies, CALL offers learners a rich online library from which they can benefit outside the classroom.

Finally, the next section will present the theoretical framework on which this thesis study is based.

2.10. Theoretical Framework: Social Constructivism

Tapscott (2007) describes constructivism as the knowledge that cannot be taught by the instructor but must be constructed by the learner. This belief is implicit in the thought of Rousseau, Dewey, Kilpatrick, Freire, Illich and Rogers and has been developed systematically in the literature on the psychology of learning. Benson (2001) summarizes their view on constructive nature of learning that constructivist approaches to the psychology of learning provide strong support for the contention that effective learning begins from the learner's active participation in the processes of learning. Furthermore, he states that learning will be most effective when learners are fully involved in decisions about the content and processes of learning since knowledge is constructed uniquely within each individual through processes of social interaction (p.36).

Constructivists claim that people learn best by doing rather than by simply listening. When children are excited about a fact or a concept that they have discovered, they will better retain the information and use it creatively and meaningfully (Tapscott, 2007). Johnson (2001) explained the roots of constructivism with five principles as well as in the followings;

- a. Constructivist learning environments seek to replicate a realistic problem situation, so learners can develop skills in complex and messy problem-solving.

- b. Learning in the social and physical context of real-world problems, including group activities, collaboration, and teamwork.
- c. Shared goals which are negotiated between both instructors, learners, and between learners.
- d. Cognitive tools which aid in helping learners organize knowledge, such as, methods of categorization, organization, and planning (Knowles et al., 1998) are crucial.
- e. An instructor's role as facilitator or coach. The instructor's role changes to one that guides learners in attaining their goals by helping them develop cognitive and metacognitive learning strategies (Johnson, 2001, p.47).

It is true that constructivism has played a significant role in many aspects of education; however, constructivist theories of learning have also started to attract the attention in many different recent studies in the field of autonomy in language learning within which the works of Kelly, Barnes, Kolb and Vygotsky have been especially influential.

George Kelly's personal construct theory was an important early influence on the theory of autonomy. He describes personal construct theory as in the following;

People look at their world through transparent templates which they create and then attempt to fit over the realities of which the world is composed. The fit is not always very good. Yet without such patterns, the world appears to be such an undifferentiated homogeneity that people are unable to make any sense out of it. Even a poor fit is more helpful than nothing at all. (Kelly, 1955, p.8-9)

According to Kelly, personal constructs come from shared values; however, systems of constructs are unique to the individual as they are formed via attempts to make sense of experiences that are uniquely one's own.

Douglas Barnes (1976, cited in Benson, 2001) put forward the distinction between 'school knowledge' and 'action knowledge'. According to him, school knowledge introduced in abstract decontextualised form, remains someone else's knowledge and is easily forgotten. However, action knowledge which is embedded in the world of the learner remains the learner's knowledge and forms the basis of the learner's actions and way of living. It is clearly emphasized in

Barnes's model that teaching and learning is a matter of communication than of instruction (p.37).

Kolb (1984) has developed experiential learning that has also influenced the theory of autonomy. In experiential learning, learning is described by Kolb as a cyclical process that integrates immediate experience, reflection, abstract conceptualization and action. In this cycle, reflection forms the bridge between experience and theoretical conceptualization. Therefore, this model of learning helps learners to integrate knowledge into their own meaning systems and take responsibility for their own learning.

Later on, in his work on developmental psychology, Vygotsky coined the term "Zone of Proximal Development (ZPD)" assuming that learning begins from the starting point of the child's existing knowledge and experience and develops through social interaction (Benson, 2001). What Vygotsky implies here is that working together with a partner, such as an adult or a more competent peer, at a level that is just above a learner's present capabilities is the best way for the learner to move onto the next level.

In recent years, it is true that education has changed from behaviorism to constructivist modes of pedagogy. Constructivist theorists emphasize learner-centered instruction and meaning making occurs in the individual, resulting from experience and social interaction with others. The teachers are expected to understand how the student thinks, so the teacher can design the environment and experiences appropriately to further enhance the student's individual meaning making (Dawley, 2007, p.3).

Another important issue in constructivist language learning theories is that most of the researchers hypothesized that computers and the Internet promote learner autonomy through helping the learners construct their own meanings via interacting socially. Constructivist theory has several characteristics that are easily adapted for Web-based activities. Some of these characteristics incorporate learner construction of meaning, social interaction to help students to learn and student problem-solving in 'real world' contexts (Leflore, 2000, in Abbey).

Benson (2001) points out that Illich's proposals for information are often highly practical and reflected in current educational practice. In the late 1990s, the idea of "learning webs" or networks that facilitate self motivated learning outside the school system was one of the proposals with particular relevance. Furthermore, Warschauer et al. (1996) argued that such webs and networks empower learners and promote autonomy.

In recent years, there has been a shift towards social constructivism in language learning since social constructivists believe that learning, especially language learning, is a social process, it does not take place only within an individual, nor is it a passive development of behaviors that are shaped by external forces. Meaningful learning occurs when individuals are engaged in social activities, that is, when there is interaction among people. Hacking (2000) argues that social constructivism is a philosophy of learning which emphasizes the importance of culture and context in understanding what occurs in society and building knowledge based on this understanding.

Considering this framework, it can be argued that education, especially, information technology, has had a big impact on our lives and therefore, it is important to make effective use of available technologies for the increase in subject knowledge, the growth of understanding and development of skills through information and communication technology (ICT). Furthermore, this information and communication technology encourage the learners to come together in order to share their learning experiences and build upon their previous knowledge, constructivism, especially social constructivism is an appropriate framework to better understand how learner autonomy in language learning occurs in information and communication. Shield, Weininger and Davies (1999) comment on the development of learner autonomy within constructivist principles in information and communication technology as in the following;

Like other CMC environments, MOO allows learners to login at times convenient to themselves. Such "24/7" technologies are excellent vehicles to promote autonomous learning strategies since they offer

learners the opportunity to connect at any time, whether or not their tutor is available.MOO also allows learners to work individually or collaboratively in customizable virtual workspaces which exist even when the occupiers are not online. With all these points in mind, then, we have developed learning activities to take advantage of the features of MOO which promote constructivist principles and autonomous learning strategies (Shield, Weininger and Davies, 1999, p.4).

It is clearly understood that in constructivist paradigm, knowledge is constructed with the help of real world tools, authentic data, relevant resources, engaging experiences and meaningful contexts. The Internet offers opportunities to learners to make use of raw data, critically evaluate information and function hardware and software products in the context of a wide range of situations (Heide & Stilborne, 2004). As stated before, language learning is a social process which requires an ongoing process. Besides working on the learners' grammar and vocabulary of the target language, the learners should also find an opportunity to use the target language for communicative purposes. This is needed to develop their communicative competence which is the ability to use the target language correctly and appropriately to achieve communication goals. The desired outcome of the language learning process is the ability to communicate competently and effectively, not the ability to use the language exactly as a native speaker does (Littlewood, 1981).

2.11. Summary of the Chapter

The review of literature indicates that over the last two decades the concept of autonomy has gained momentum in the field of language teaching. Learner autonomy is viewed as an indispensable part of effective language learning in which learners are expected to assume greater responsibility for, and take charge of their own learning. However, learner autonomy does not mean that teachers become redundant and leave all their control to learners. Teachers are expected to be counselors and facilitators to help the learners acquire necessary learning strategies, increase their motivation, take responsibility for their learning and

engage in out-of-class study, all of which lead learners to develop autonomy in their learning process.

The rate of technological progression has led language educators to seek ways to legitimize their teaching practices and the design of online language learning environments. Learner autonomy is, understandably, at the forefront as its principles such as learner differences, learner responsibility and control seem to be encouraged and fostered by technology (Dolan, 2002).

The rise of the information age has led to the widespread use of information technology (IT) in almost all spheres of life as well as schools and thereby enabling learners to further enhance and take charge of their own learning. However, most of the studies conducted to investigate learner autonomy within CALL environments are limited and thereby, more research is needed in order to gain more insight (Benson, 2001).

Creating online instructional materials along with constructivist principles provides an important and sound theoretical framework to promote learner autonomy. Problem-solving or situational tasks incorporated within the materials by the help of CMC tools such as blogs, discussion forums, e-mails encourage interaction among students and between students and instruction in such a manner requires more student involvement and greater control on their part over their learning. This also provides more opportunities for learners to work collaboratively.

In accordance with the information presented in the literature review part, this study aims to investigate the research questions stated in Chapter 1. As the previous research on learner autonomy in CALL environments mostly focused on smaller parts of learner autonomy such as student motivation in CALL environments or out-of-class study via CALL, this study carries importance to see four aspects of learner autonomy, which are using language learning strategies, motivation, taking responsibility and out-of-class study in CALL environments.

CHAPTER 3

METHODOLOGY

3.1. Overview of the Chapter

In this chapter, the methodology of this study is focused on. After describing the context of the study, data collection and the analysis of the methods are presented. The instruments utilized in data collection process and the procedures that were followed during the data collection process are given so as to get a clear picture of the data collection and analysis processes.

3.2. Research Questions and Research Methodology

3.2.1. Research Questions and Research Design

This research study was designed to answer three research questions. The first research question aimed to explore to what extent the application of CALL helped learners increase autonomy in their learning. In order to gain insight about the concept of autonomy, four aspects were examined. These were learners' language learning strategy use, motivation, taking responsibility and out-of-class study, all of which are determined as indicators of learner autonomy development. To gather data on these issues, a questionnaire, semi-structured face-to-face interviews, learners' e-learning diaries and observation done throughout a five-week language learning strategy training through web-based instruction were used and the data were analyzed both quantitatively and qualitatively.

Secondly, the difference between the Strategy Training Group (STG) and the Non-Strategy Training Group (NSTG) was explored to collect information about the development of autonomy in both groups. In order to address this research question, quantitative data gathered through the questionnaire and qualitative data collected through semi-structured face-to-face interviews and the observation done throughout five-week language learning strategy training through web-based instruction were used.

Finally, learners' overall feelings about learning English supported by CALL environments were explored. To collect data on this issue, semi-structured face-to-face interviews were used. Therefore, in order for the study to reach its aims varying between quantitative and qualitative concerns, this research study grounded its methodology on mixed-methods approach in which the researcher mixes or combines quantitative and qualitative research techniques (Fraenkel & Wallen, 2005) (See Table 1 below).

Table 1. Research Questions, Methods and Instruments Used in the Study

Research Question	Method	Instrument
<p>Question 1: To what extent does the application of computer-mediated language learning increase the learners' autonomy in language education?</p> <ul style="list-style-type: none"> • To what extent do learners develop their language learning strategy use through computer-assisted language learning? • To what extent does learners' motivation increase through computer-assisted language learning? • To what extent do learners' accept responsibility for learning in computer-assisted language learning? • To what extent do learners perform out-of-class activities in computer-assisted language learning? 	Quantitative and Qualitative	<p>Questionnaire Semi-structured Face-to-face Interview E-learning diary Observation throughout a five-week language learning strategy training through CALL</p>
<p>Question 2: Is there a significant difference between the students in Strategy Training Group (STG) who get web-based instruction and the students in Non-Strategy Training Group who do not regarding autonomy development?</p>	Quantitative and Qualitative	<p>Questionnaire Semi-structured Face-to-face Interview Observation throughout a five-week language learning strategy training through CALL</p>
<p>Question 3: How does the application of computer-mediated language learning affect the learners' perceptions of English Language Learning on the computers and the Internet?</p>	Qualitative	<p>Semi-structured Face-to-face Interview</p>

3.2.2. Research Methodology

Different types of instruments, both qualitative and quantitative methods, were used to collect the data for the study as mixed methodology is said to present reliable information. In mixed methodology, the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches in one study (Fraenkel & Wallen, 2005). Brown (1995) comments on the importance of combining qualitative and quantitative methods by stating that both types of data can yield valuable information in any evaluation, and therefore ignoring either type of information would be pointless and self-defeating (p. 232). Basing the study on more than one type of data collection instruments is also important for triangulation. Richards (2001) emphasizes that since any one source of information is likely to be incomplete or partial, a triangular approach which is defined as collecting information from two or more sources is advisable (p.59). Therefore, both qualitative and quantitative methods were utilized to collect the necessary data for this study.

In this thesis study, both quantitative and qualitative methodology helped to explain learner autonomy development in terms of language learning strategy use, increasing motivation, taking responsibility and engaging in out-of class study with the help of computer-assisted language learning. Furthermore, the difference regarding learner autonomy development through CALL between the Strategy Training Group and the Non-Strategy Training Group was explored.

In the next section, participants, the setting, data collection instruments and data analysis procedures will be explained.

3.3. Participants of the Study

The participants who took part in the study were English preparatory class students at a private university where the study was conducted. Like many other universities in Turkey, the students who enrolled for this university must meet the

English language requirements before they start to study in their departments. At the very beginning of the year, the students, unless they provide the university with an internationally recognized English language test score such as TOEFL, go through a three-stage exam procedure. First, they sit the proficiency placement test administered by the Foreign Language Department and the ones who fail the test are placed at the lowest level called Level A. The ones who pass this placement test take the next stage of the exam procedure and take both speaking and writing tests. The students who fail this stage are placed at the middle level called Level B. The students who pass this stage take the last stage of the exam which is Institutional Paper-based TOEFL. If the students get 500 out of 677, they start to study in their departments. Otherwise, they are placed at Level C, which is the highest level at the Preparatory Class. As mentioned before, there were three levels, elementary, intermediate and upper intermediate. However, the teacher-researcher chose to work with intermediate students at Level B. Students at intermediate level were chosen because of the following reasons: The best group to work with was the intermediate group as students at the elementary level would find it difficult to follow the web-based instruction properly due to their low level of English. Students at upper intermediate level have an exam oriented instruction and may not have been motivated to take part in such kind of a study. Furthermore, upper intermediate level students have only autumn semester and at the end of the semester, they take the TOEFL test and then, if they get the required score from the test, they start to study in their departments. For easy access to the students during the year, intermediate level students were preferred as they study in preparatory class for one full year.

48 preparatory students at the intermediate level were chosen to take part in the study. 24 of the students were placed in the Strategy Training Group (STG) and 24 of the students were placed in the Non-Strategy Training Group (NSTG). The teacher-researcher was randomly assigned to teach to the Strategy Training Group by the administration for the whole autumn semester which lasted 15 weeks. The teacher-researcher conducted the study at the end of the seventh week

which helped her to get to know the students in terms of their English proficiency level, language learning habits, needs and interests. Before the study was carried out, all of the intermediate level students had already taken four quizzes. The Non-Strategy Group was chosen according to their English proficiency level as the results of four quizzes revealed that this group of learners was the closest group regarding English language proficiency level to the Strategy Training Group.

3.3.1. Age, Type of High School, Length of English Study and Visiting an English Spoken Country

All students in both groups were asked to give information about themselves concerning their age, the type of high school that they graduated from, how long they had been learning English and whether they had been to a country where English is spoken in the first part of the questionnaire. In terms of age, both the STG and the NSTG did not show any variance as all of the students belonged to the group of 17-20 years category.

With regard to gender, 25% of the students were females and 75% of the students were males in the STG whereas 29.17% of the students were females and 70.83% of the students were males in the NSTG. (Figure 1)

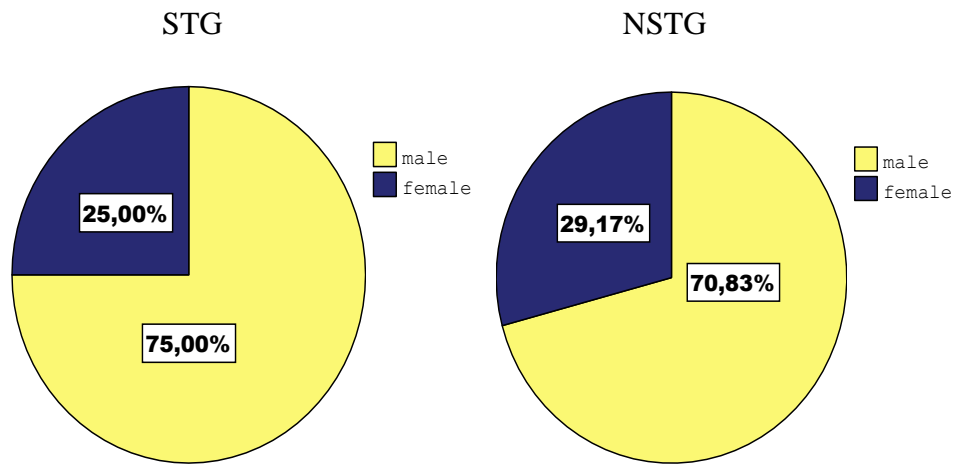


Figure 1. Gender distribution of Questionnaire Population

There are three types of main high schools in Turkey. The first type of high school is Anatolian or Super High School, both of which give intensive English education. Similarly, Foreign Language Private Schools give intensive English language education; however, State High Schools do not provide students with intensive language education. As for the distribution of the students regarding high schools that they graduated from, 75% of the students in the STG graduated from Anatolian or Super High School. Secondly, 16.67% of the students graduated from Foreign Language Private School and finally, 8.33% of the students were graduates of State High School. 70.83% of the students in the NSTG graduated from Anatolian or Super High School. Additionally, 20.83% of the students graduated from Foreign Language Private High School and only 8.33% students graduated from State High School. Regarding their English language education in high school, there is a significant similarity between two groups in the sense that in both groups, the majority of the students graduated from Anatolian or Super High School, both of which give intensive English language instruction (Figure 2).

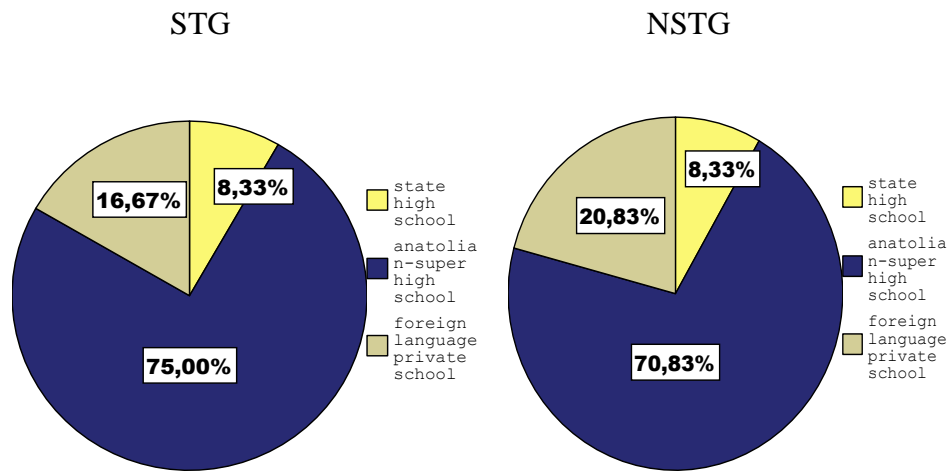


Figure 2. Distribution Type of High School of Questionnaire Population

The length of the English study of the students was another type of information that did not show a wide variation due to the fact that most of the students in the two groups graduated from the same type of high school. 83.33% of the students in the STG stated that they had been learning English between 6 and 10 years. Additionally, only 16.67% of the students had been learning English for more than 10 years. Similarly, 70.83% of the students in the NSTG responded that they had been learning English between 6 and 10 years. Only 12.50% of the students had been studying English between 1 and 5 years and finally, 16.7% of the students had been learning English for more than 10 years (Figure 3).

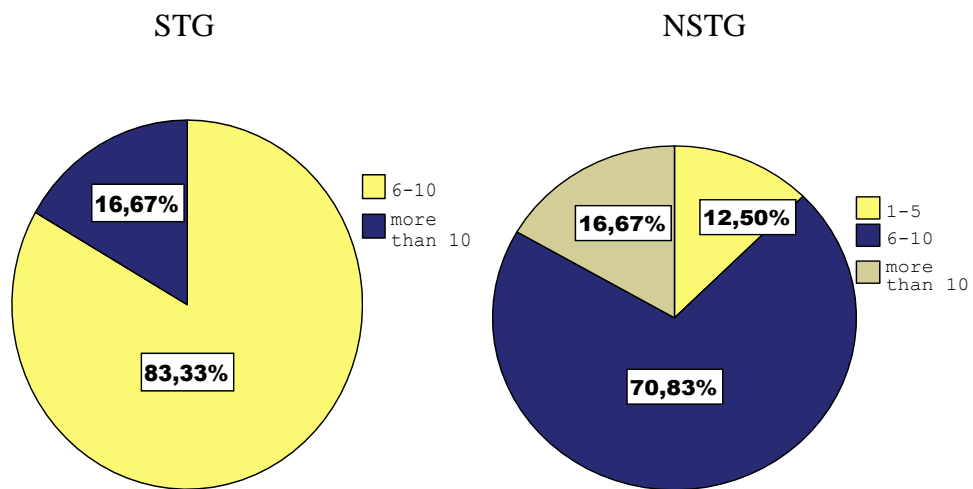


Figure 3. Distribution of the Length of English Study of Questionnaire Population

Finally, all of the students in the two groups were asked whether they had been to a country where English is spoken. Majority of the students (91.67%) in the STG had not been to a country where English is spoken. Only 8.33% of the students had been to a country where English is spoken for the purpose of holiday. Similarly, 79.17% of the students in the NSTG had not been to a country where English is spoken. Of the students who answered yes, 2 of them had been to a country where English is spoken for holiday, 2 of them for language course and 1 for family reasons (Figure 4).

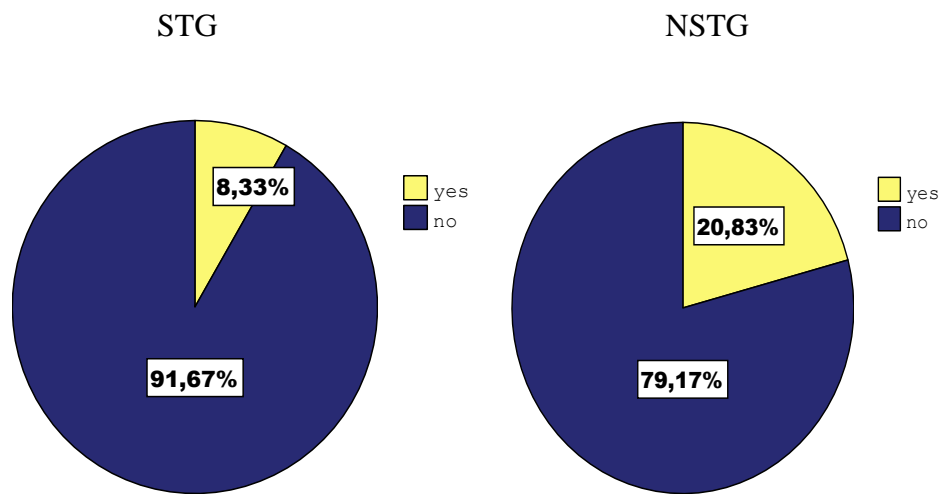


Figure 4. Distribution of Visit to an English Language Speaking Country of Questionnaire Population

As far as the students ages, type of high school that they graduated from, length of English language study and visiting a country where English is spoken are concerned, both groups were similar to each other, which increased the reliability and effectiveness of the study. Furthermore, the students did not show a wide variation in terms of the things mentioned above within their own groups.

3.3.2. The Analysis of Computer Ownership, Internet Access and Hours of Weekly Computer Use

Apart from the personal characteristics of the students, the students were asked to indicate the computer ownership, the Internet access and hours of weekly computer use through a short questionnaire at the beginning of the semi-structured face-to-face interviews. As the university was donating a laptop to each student upon their enrollment to the university as a policy, each student participating in the study normally had a laptop.

Regarding the students' having access to the Internet in their houses, the majority of the students (70.8% of the students in the SGT and 62.5% of the students in the NSTG) had the Internet access at home. When the two groups are

compared, it is seen that more students had the Internet access at home in the STG than in the NSTG, which was important as the students in STG were required to use the Internet at home during the training (Table 2).

Table 2. Number of Students in the STG and the NSTG with Access to the Internet

STG		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	17	70,8	70,8	70,8
	no	7	29,2	29,2	100,0
	Total	24	100,0	100,0	
NSTG		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	15	62,5	62,5	62,5
	no	9	37,5	37,5	100,0
	Total	24	100,0	100,0	

The students were also asked to talk about the weekly hours of their computer use. The distribution of weekly hours of computer use of the students did not show a wide variation. The students in both groups indicated almost an equal distribution within the given hour limits. This means that there are students in both groups spending a lot of time on computers, spending little time on computers and spending not much time on computers (Table 3).

Table 3. Hours of Weekly Computer Use of the Students in the STG and the NSTG

STG		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-3 hours	6	25,0	25,0	25,0
	4-7 hours	7	29,2	29,2	54,2
	8-11 hours	4	16,7	16,7	70,8
	12- More hours	7	29,2	29,2	100,0
	Total	24	100,0	100,0	
NSTG		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-3 hours	6	25,0	25,0	25,0
	4-7 hours	6	25,0	25,0	50,0
	8-11 hours	3	12,5	12,5	62,5
	12- More hours	9	37,5	37,5	100,0
	Total	24	100,0	100,0	

3.4. Setting and Procedure of the Study

3.4.1. Setting of the Study

The study was conducted in the Department of Foreign Languages at a private University in Ankara. During her two-year experience in the Department of Foreign Languages Department at the university, the teacher-researcher has taught two different levels and has given different classes such as reading, writing, speaking, listening, video classes and TOEFL preparation courses. At the beginning of the semester, the teacher-researcher was given a group of students named throughout this study as the Strategy Training Group (STG) in which there were 24 students. The other group called throughout the study the Non-Strategy Training Group (NSTG) was chosen due to the fact that it was the closest group to Strategy Training Group regarding their English language achievement which was determined by the exams given by the department. The Non-Strategy Training

Group had two instructors who were very similar to the teacher-researcher in terms of their English language education. The instructors of both groups held a degree in English Language Teaching and they were doing their MAs in English Language Teaching. Two of them were females and one of them was a male whose ages were close to each other.

The autumn semester during which the study was carried out consisted of 15 weeks. The language learning strategy training through CALL started after the teacher-researcher had 7 weeks with the students in the STG. The language learning strategy training through CALL lasted for 5 weeks and the teacher-researcher had three weeks to observe general tendencies of the students regarding their language learning strategy use, motivation levels, responsibility taking and out-of-class study engagement.

3.4.2. Procedure of the Study

Throughout the language learning strategy training, both the STG and the NSTG followed the same weekly syllabus prepared by the Curriculum Unit at the university. However, different activities were integrated into the syllabus of the STG while the NSTG followed the usual weekly syllabus prepared by the Curriculum Development Office of the department. The students in the STG were intensively involved in language learning strategy training through computer-assisted language learning both inside and outside the classroom. The strategy training incorporated, as suggested by Oxford (1990), memory, cognitive, compensation, metacognitive, affective and social strategies with their sub-headings (See Appendix 3). The training was given explicitly; that is, the students were told what the strategies were, how they could use it and why they needed those strategies. Additionally, all of the strategies were integrated into the weekly units of the coursebooks and daily activities of the lessons by using computers and the Internet.

As the teacher-researcher had 20 hours a week with the STG, she taught two different books called Top Notch (Intermediate) and NorthStar Reading and

Writing (Intermediate). Top Notch was used for ten hours a week to mainly teach grammar points in an integrated way; that is, all four skills were also practiced throughout the units in the book. However, NorthStar Reading and Writing were mainly used for ten hours a week to further study reading and writing skills. Each week the teachers were scheduled to finish one and a half unit from Top Notch and one unit from NorthStar Reading and Writing. Therefore, during the five week strategy training, 7 units from Top Notch and 5 units from NorthStar Reading and Writing were covered.

Two weeks before the study started, the teacher-researcher set up a web page named *www.arzumutlu.ifastnet.com* for the STG. On this web page, a discussion forum (See Appendix 5) was created. A blog page (See Appendix 7), which was also created by the teacher-researcher, was attached to this web page. Furthermore, an online speaking class was created on Yackpack (www.yackpack.com), a web page designed to communicate through voice chatting (See Appendix 6). Additionally, the teacher-researcher set up a yahoo group account (See Appendix 8) and invited all the STG students to join the group. Finally, the students were asked to get a new yahoo e-mail account to join the yahoo group, forum and blog page, and a g-mail account to join the Yackpack online speaking class. In order for the students to join the yahoo groups, discussion forum, blog page and Yackpack online classroom, they were required to be personally invited by the teacher-researcher as an administrator. It was designed in that way in order not to allow people or other students to sign in to any of the tools. When getting an e-mail account or joining a group such as discussion group or yahoo e-mail group, all students in the STG were given help individually after classes at the university in order to avoid frustration. Besides these, throughout the lessons, powerpoint presentations prepared by the teacher-researcher were mainly used in the introduction of new points such as grammar, vocabulary throughout the lessons.

3.4.2.1. Discussion Forum

To begin with, the discussion forum was mainly used to engage the students in the STG in discussion outside the classroom. Each week of the training, as there were weekly units of both of the books (Top Notch and NorthStar) to be covered, the teacher-researcher posted two different questions inviting the students to talk about the topics of those weeks' units from both coursebooks. Furthermore, at the end of each week, an e-learning diary was created, which necessitated the students to talk about their weekly experiences and feelings in terms of their language learning and in general terms define weaknesses and strengths regarding their language learning during that week. Apart from these, the students were encouraged to determine one or two topics of their interest for each of the week to discuss. Finally, the students also used the discussion forum to share their weekly assignments or the works that they produced during the class hours. For instance, one of their assignments was to translate an English text into Turkish. Upon finishing translating the text into Turkish, they posted them to the discussion forum. Additionally, the students were engaged in several writing activities such as creating a story based on a few sets of pictures. On completing the task, they posted their products on the discussion forum page which prompted discussion among the students as they were allowed to comment on their friends' work. Finally, the discussion forum was used to continue the discussion among the students after they watched a movie during class hours on Fridays each week. The students were assigned two different tasks related to the movie that they watched in the classroom, one of which was to communicate their feelings and ideas about the film. However, the other one was usually a group work asking the students to write a summary, change one part of the film that they didn't like or write a different end to the movie.

3.4.2.2. Blog Page

The blog page was only used as an archive for the students' weekly writing assignments. This assignment was different from other types of writing work in the sense that NorthStar Reading and Writing book was teaching writing different types of paragraphs such as opinion, descriptive and compare/contrast each week and the students were tested on writing those types of paragraphs in the exams. Therefore, at the end of each week, upon finishing writing their paragraphs, they e-mailed them to the teacher-researcher for feedback. After checking the writings for accuracy and organization, she sent them back to the students, asking them to post them to the blog page. The students were encouraged to comment on the topic of the writings of their friends. However, they were not allowed to make comments regarding the accuracy or organization of the writings.

3.4.2.3. E-mails

Throughout the study, e-mails were used to check assignments such as writing, grammar and vocabulary check. For instance, when the students were asked to do a kind of assignment such as writing a paragraph, they were asked to send their homework through e-mails. The teacher-researcher answered them all in two days time. Furthermore, the STG class had a yahoo group which the instructor mainly used to attach daily and weekly homework files including grammar, vocabulary, reading and listening (especially song activities) activities. The students downloaded the attached files, worked on them and then e-mailed their questions related to those extra activities to get feedback. Furthermore, the yahoo group account was also utilized to contact with the students after classes and at the weekends.

3.4.2.4. Internet Chat

As for the Internet chat, MSN was the main tool during the training. The teacher-researcher got a new account from www.hotmail.com page and added all

of the students in the STG to her list. In the evenings throughout the weeks during the training, she was available on the MSN so as to help the students with any urgent problems related to their assignments that required using the website including the discussion forum page, blog page and yackpack online speaking classroom.

3.4.2.5. Yackpack

The yackpack online speaking class was used three times a week. It was mainly used to let the students talk about something when the class hour did not make it possible. To illustrate, the students were normally engaged in two main reading texts in NorthStar Reading and Writing each week. Following the two reading texts in each unit, there were discussion questions related to the general aspect of the topic. The teacher-researcher and the students together decided on the ones to discuss in the classroom and the ones through the yackpack online classroom. Upon deciding, the students and the teacher sent their answers to the questions through the yackpack online speaking classroom. After listening to the answers of the others, the students were encouraged to comment on some of their friends' posts orally. The medium of language was English when using any type of CMC tool such as e-mails or msn and no one was allowed to use Turkish.

With respect to language learning strategy training, although the strategies were introduced one by one, it was not possible to practice them separately. This stemmed from the fact that most strategies overlapped in the activities. All of the strategies which are presented in Appendix 3 were inserted into the daily activities and assignments. The first week was spent on the introduction of almost all of the strategies and they were followed by activities to provide practice on them. The following four weeks focused on the practice and review of the strategies. The strategies were introduced to the students within the related parts of the units in each book during the five weeks.

After the strategies were introduced, the computers and the Internet resources were used to practice them. As the teacher-researcher had 20 hours a

week with the students, she integrated computer and the Internet use into any hours of the week. However, in total, it could be said that the computers and the Internet were used between 10 and 13 hours a week during the lessons.

3.4.2.6. Sample Classroom Activities

In order to gain a clear insight about the design of classes which focused on the language learning strategy training through computers and the Internet, it is necessary to give some examples. The design of the units in both Top Notch and NorthStar are very similar to each other. To exemplify, unit 10 in Top Notch, which was the unit of the first week of the strategy training, focuses on ethics and values in different contexts and it aims to work on returning someone else's property, discussing ethical choices, expressing personal values and discussing honesty. The unit is composed of an introduction part (the first two pages), Lesson 1, focusing on the topic of returning someone else's property and the introduction of possessive pronouns, Lesson 2, working on discussing ethical choices and the introduction of factual and unreal conditionals, Lesson 3, aiming to express values through listening for the gist, main ideas and details and finally Lesson 4, dealing with discussing honesty and reading for skimming and scanning. When this unit started to be focused on, the students in the STG first discussed the honesty issue in general terms which was given in the introduction part of the unit, and then, they were asked to visit the following page

<http://www.cbsnews.com/stories/2002/11/08/48hours/main528761.shtml> (Figure 5).

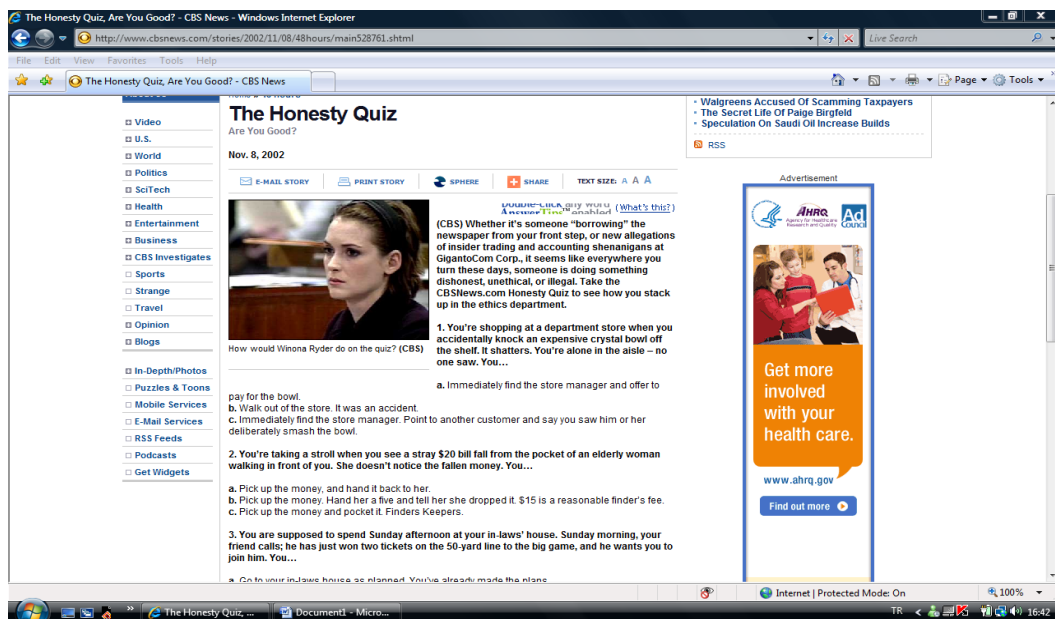
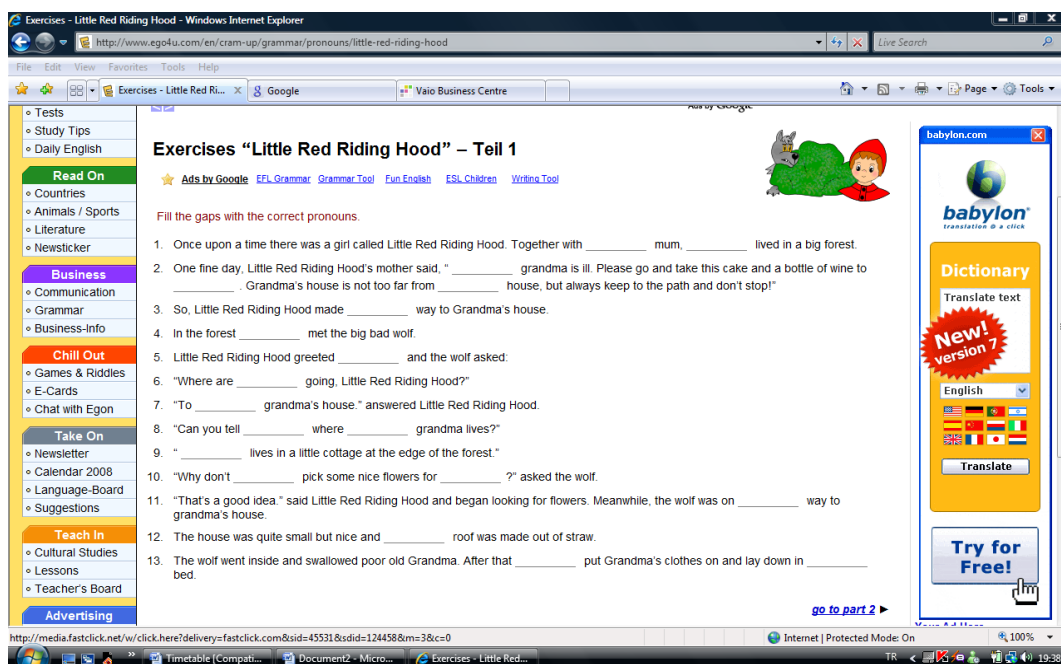


Figure 5. The Web Page Showing ‘The Honesty Quiz’

There was an honesty quiz on the page and the students were given 10 minutes to do the quiz and upon completing the task, they were also required to report the results to the person sitting next to them. The aim of this activity was to motivate students towards the topic of the unit and encourage discussion of students’ personal thoughts about honesty by the help of an online honesty quiz. The language learning strategies involved in this activity were cooperating with others (social strategy), as they interacted with each other to report the answers to each other in pairs, practicing naturalistically (cognitive strategy) as they worked on an authentic text, making use of practice opportunities (metacognitive strategy) as the text was not coursebook based, discussing your feelings and ideas with others (affective strategy) as they worked in pairs to compare and contrast their answers, becoming aware of others’ thoughts and feelings (social strategy). It is clearly seen that with one activity, more than one strategy were addressed. While the students were working on such kind of an activity, the students in the NSTG only followed the book.

Another example could be the grammar practices that the STG was involved inside the classroom. For instance, following the powerpoint presentation of possessive pronouns as a grammar point of the week, the students visited the following page to practice possessive pronouns <http://www.ego4u.com/en/cram-up/grammar/pronouns/little-red-riding-hood> (Figures 6&7).



The screenshot shows a web browser window with the address bar displaying <http://www.ego4u.com/en/cram-up/grammar/pronouns/little-red-riding-hood>. The page title is "Exercises "Little Red Riding Hood" – Teil 1". The main content area contains a list of 13 sentences with blanks for possessive pronouns. A sidebar on the left lists various categories like Tests, Study Tips, and Grammar. A sidebar on the right features a Babylon Dictionary advertisement. The bottom of the page shows a taskbar with several open applications.

Exercises "Little Red Riding Hood" – Teil 1

Fill the gaps with the correct pronouns.

- Once upon a time there was a girl called Little Red Riding Hood. Together with _____ mum, _____ lived in a big forest.
- One fine day, Little Red Riding Hood's mother said, " _____ grandma is ill. Please go and take this cake and a bottle of wine to _____. Grandma's house is not too far from _____ house, but always keep to the path and don't stop!"
- So, Little Red Riding Hood made _____ way to Grandma's house.
- In the forest _____ met the big bad wolf.
- Little Red Riding Hood greeted _____ and the wolf asked:
- "Where are _____ going, Little Red Riding Hood?"
- "To _____ grandma's house," answered Little Red Riding Hood.
- "Can you tell _____ where _____ grandma lives?"
- " _____ lives in a little cottage at the edge of the forest."
- "Why don't _____ pick some nice flowers for _____?" asked the wolf.
- "That's a good idea," said Little Red Riding Hood and began looking for flowers. Meanwhile, the wolf was on _____ way to grandma's house.
- The house was quite small but nice and _____ roof was made out of straw.
- The wolf went inside and swallowed poor old Grandma. After that _____ put Grandma's clothes on and lay down in _____ bed.

[go to part 2](#)

Figure 6. The Web Page Showing the Grammar Exercise Called "Little Red Riding Hood" on Possessive Pronouns

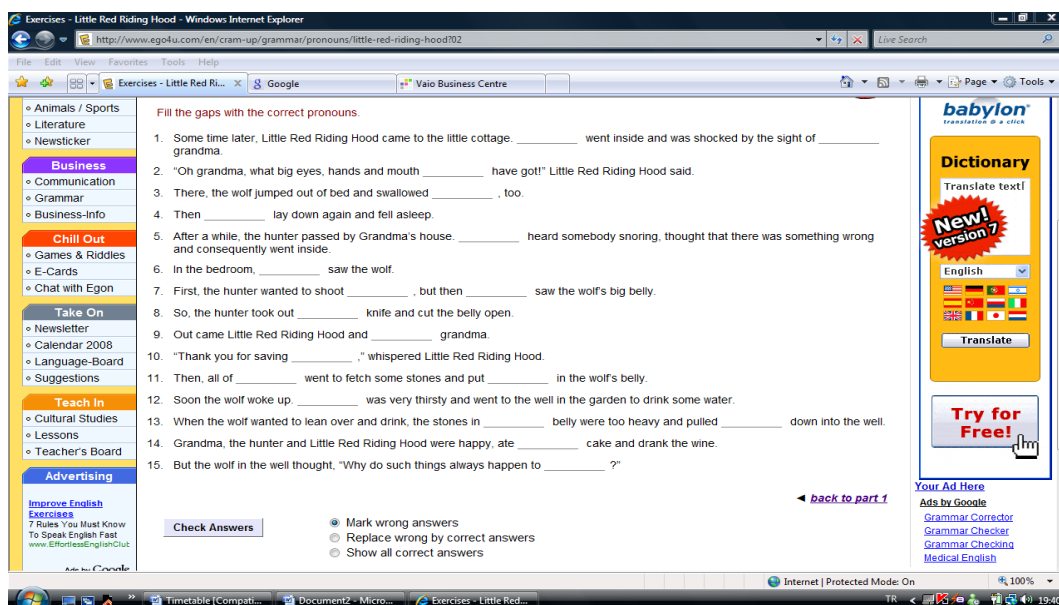


Figure 7. The Web Page Showing the Second Part of the Grammar Exercise Called “Little Red Riding Hood” on Possessive Pronouns

The aim of this activity was to expose the students to pronoun practice which the coursebook, Top Notch, lacked. The language learning strategies involved in this activity were making use of practice opportunities (metacognitive strategy) as they used materials that did not appear in the coursebook to practice the grammar point of that week, finding out about language learning (metacognitive strategy) as they found out that language learning was not restricted to coursebooks, overviewing and linking with already known material (metacognitive strategy) as they were introduced to possessive pronouns as a new grammar point but in the activity they were also using both subject and object pronouns as they had already learned them, using mechanical techniques (memory strategy) as they were only filling in the blanks with one of the pronouns without producing something in the target language. In contrast to the STG, the students in the NSTG were provided with only a few practice questions in Top Notch.

Besides using PowerPoint presentations prepared by the teacher-researcher to teach grammar, some web pages which contextualized the grammar points were utilized in the lessons. To exemplify, factual and unreal conditional statements

were introduced to the students through http://www.englishspace.ort.org/esdemo/startdemo_11.htm (Figure 8). This activity aims to contextualize the grammar point that is factual and unreal conditionals by the help of an authentic material taken from a website. First the teacher-researcher introduced the grammar point to the students through LCD overhead projector (Figure 8). Then, the students worked on their own laptops to do the following exercise on the same web page (Figures 9&10). This created a different environment from the environment of the NSTG who were introduced the grammar point through traditional methods, that is, it was explained on the board by the teacher. The language learning strategies involved in this activity were finding out about language learning (metacognitive strategy) as they found out that language learning was not restricted to coursebooks, overviewing and linking with already known material (metacognitive strategy) as they were introduced to unreal conditional sentences as a new grammar point but in the activity they were also using factual conditional sentences as they had already learned them, using mechanical techniques (memory strategy) as they were only filling in the blanks using factual or unreal conditional sentences without producing something in the target language, using linguistic clues (compensation strategy) as they were using both the context of the text and the time expressions to decide on the correct type of conditional sentences and structured reviewing (memory strategy) as they were involved in different types of activities such as seeing the new grammar point in the context (Figure 8), doing fill-in-the blanks activities, finishing the sentences using the new grammar point (Figure 10), matching the sentences with the appropriate type of conditionals (Figure 9) to practice the newly taught grammar point.

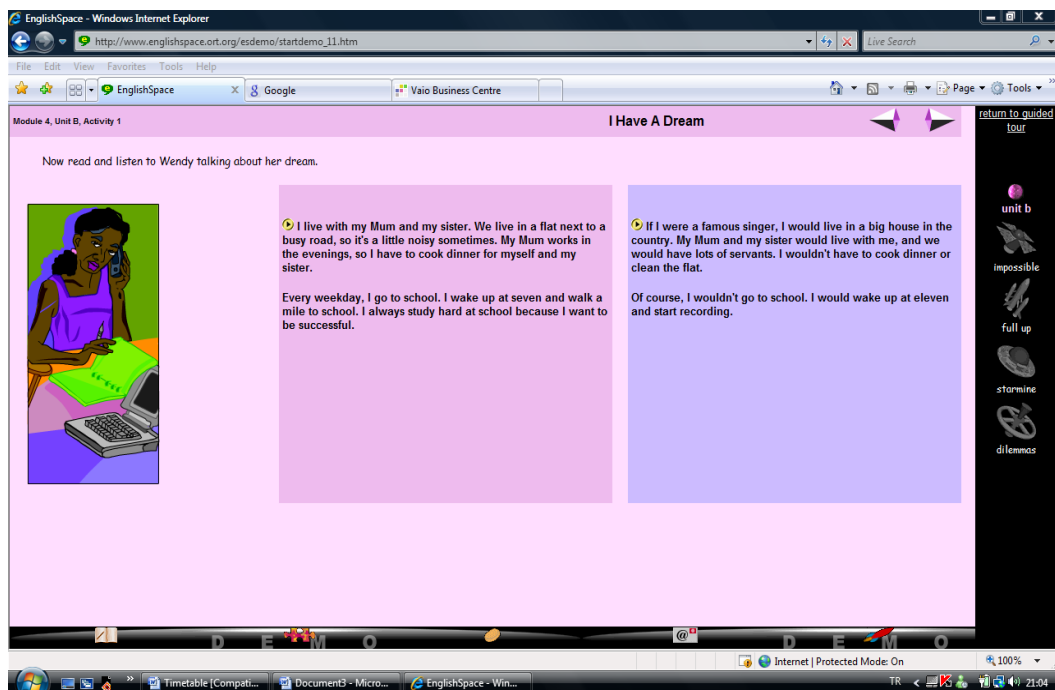


Figure 8. The Web Page Showing a Context to Teach Factual and Unreal Conditionals

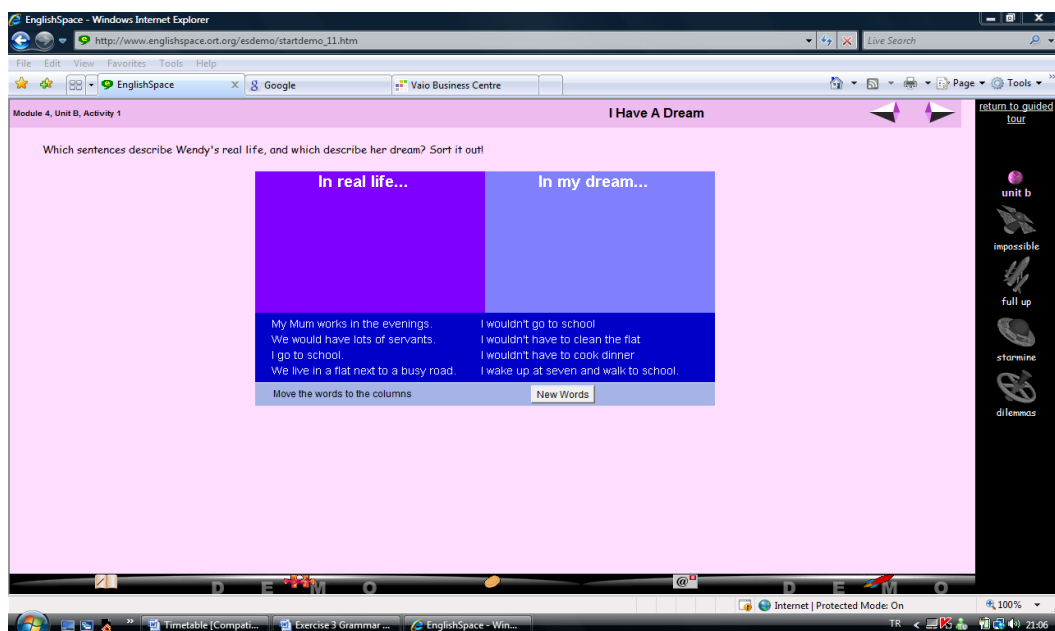


Figure 9. The Web Page Showing Grammar Exercise on Factual and Unreal Conditionals

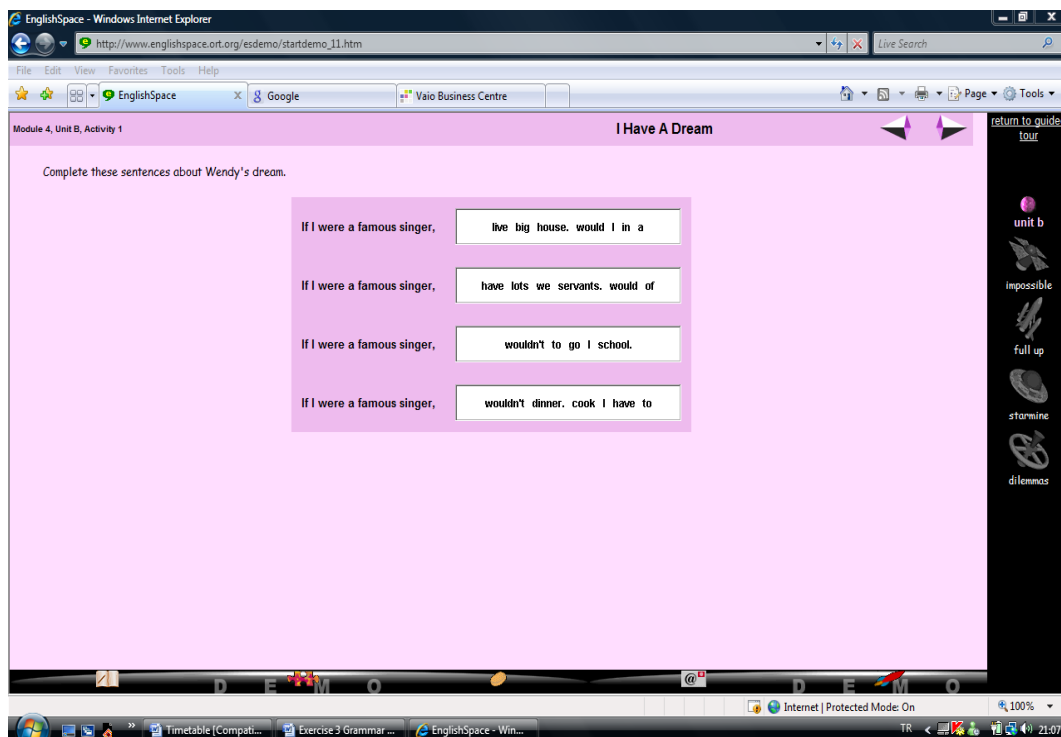


Figure 10. The Web Page Showing Grammar Exercise on Factual and Unreal Conditionals

Throughout the study, vocabulary teaching was also thoroughly focused on and the students in the STG were urged to use different types of strategies to work on their vocabulary. One of them was to group the new vocabulary within charts or tables. To illustrate, the students were paired up to group the vocabulary in one of the units in NorthStar. As the topic of that week was fashion, the new words were also related to the theme of fashion. Two students in the STG grouped the fashion related vocabulary as in the following (Figure 11):

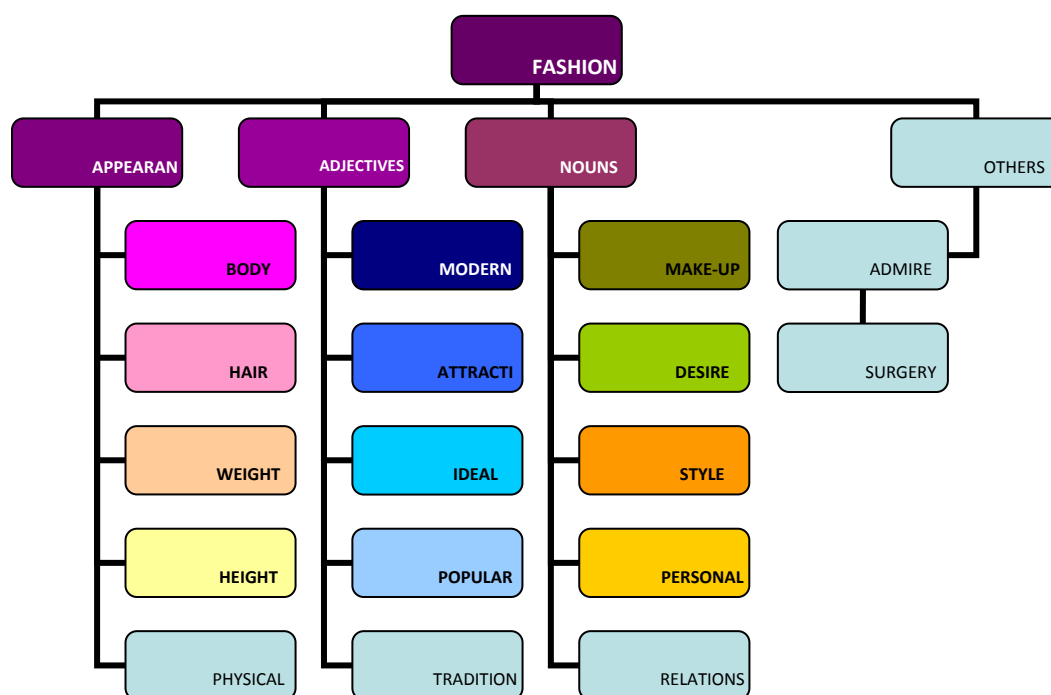


Figure 11. A Student Sample Showing Word Grouping

The language learning strategies involved in this activity were grouping (memory strategy) as the learners grouped the new vocabulary under related categories, practicing naturalistically (cognitive strategy) as they used their own ways and knowledge to categorize the new vocabulary, using mechanical techniques (memory strategy) as they only used the given vocabulary, organizing (metacognitive strategy), as they organized the new vocabulary, and cooperating with peers (social strategy) as they worked in pairs.

In order to get a clear picture of the procedure of the language learning strategy training through CALL, the procedure has been briefly summarized with some specific examples of classroom activities. In order to get more example activities from the language learning strategy training through CALL, see Appendix 4.

3.5. Data Collection Instruments

In this study, five types of data collection methods which are a questionnaire (See Appendix 1), a semi-structured face-to-face interview (See Appendix 2), an e-learning diary, observations and language learning strategy training through web-based instruction were used.

3.5.1. The Questionnaire

According to Richards (2001), questionnaires are easy to administer and information can be obtained from large numbers of respondents. Taking into consideration the potential of questionnaires in gathering large amounts of information, the questionnaire was the first tool used to find out about the students' learning strategy use both before and after the language learning strategy training through CALL.

The questionnaire used was the SILL, version 7.0 (Oxford, 1990), a 50-item self-report survey meant for English speakers learning a foreign language. The SILL, a Likert-type measure, examines the frequency with which respondents use strategies for language learning. It consists of six subgroups of language learning strategies: memory, cognitive, compensation, metacognitive, affective and social strategies. There are five ranges of answers in the questionnaire. Number 1 refers to *never or almost never true of me (0%)*, number 2 means *usually not true of me (25%)*, number 3 is *somewhat true of me (50%)*, number 4 refers to *usually true of me (75%)* and finally, number 5 means *always or almost always true of me (100%)*. The SILL was also accompanied by a background questionnaire aiming to gather information about the students' age, type of high school from which they graduated, the length of English language study and whether they had been to an English speaking country.

The Turkish translation of SILL based on a thesis study by Yeşilbursa (2002) was used in order to avoid any errors that may have occurred due to language proficiency. Both groups were given the SILL asking about their

learning strategies both at the beginning and at the end of the web-based language learning strategy in order to see whether the students developed their language learning strategies by the help of web-based instruction.

SILL was given to the two groups both at the beginning and at the end of the language learning strategy training through CALL so as to see the difference regarding language learning strategy use before and after the five-week strategy training. Therefore, the questionnaire is addressed as the pre-test and the post-test throughout this thesis study.

3.5.1.1. Reliability

Wharton (2000) points out that the SILL is one of the questionnaires that is mostly used to assess language learning strategy globally, but it has still some potential problems related to retrospective self-report techniques and questionnaires (p.212). Therefore, pre-testing seems crucial for the success of the questionnaire. Pilot studies are used primarily to increase the reliability, validity and practicality of the questionnaire (Richards, 2001). Thus, although the Turkish translation of SILL was based on a thesis study, the initial version of the questionnaire was piloted on 21 students: 8 are females & 13 males. Those 21 students were chosen because they were placed at the same proficiency level with the STG and the NSTG as piloting population should be closely similar to the intended population (Krathwohl, 1998). In the light of the piloting study, some questions were reworded. The results were computed in SPSS (Statistical Package for the Social Science) version 14 and Cronbach Alpha Analysis was calculated to find the reliability coefficients of the questionnaire. It was discovered that the responses were reliable with coefficients above .80. The overall reliability of the questionnaire was considered as acceptable for Leech, Barret and Morgan (2005), who highlight that as with other reliability coefficients, the alpha should be above .70 (p.67). The results of the pilot study indicated that the questionnaire was reliable.

3.5.2. Semi-structured face-to-face interviews

In this study, besides gathering quantitative data yielding statistical information about the respondents, getting information about the language skills of the students, their way of learning, their learning habits, their purpose of learning English and their general attitudes towards English language learning and using computers and the Internet to improve their English was also one of the main agendas. Furthermore, in order to let the students comment on their experiences that they gained throughout the language learning strategy training through web-based instruction, interviews helped the teacher-researcher to probe into deeper learner autonomy in CALL environments, which would be difficult otherwise. To address these issues, the qualitative data were collected through semi-structured face-to-face interviews. Brown (1995) states that interview procedures are a fairly open ended type of instrument, adding that individual interviews help researchers to gather personal responses and views privately, which results in insights that are real opinions of the participants involved (p.49). As the interviews are personal interaction of the researcher with the interviewee (Richards, 2001), they enabled the teacher-researcher to gain deep insight into the research questions asked to be searched for the purposes of this study.

Due to time constraints, only the Strategy Training Group was interviewed. Although the Language Learning Strategy Inventory gave a lot of information about the learners' strategy use, it did not yield any information about how much learners were motivated to learn the language, how much they were ready to take responsibility for their learning and their out-of-class study. After the pre-questionnaire was given, the students in the STG were first given a pre-interview to gain insight about English language skills of the students, their way of learning, their learning habits, their purpose of learning English, their general attitudes towards English language learning and using computers and the Internet to improve their English. The students in the STG were also interviewed at the end of the five-week language learning strategy training through web-based

instruction and they were mainly asked about what they liked and disliked during the five-week-strategy training, their general attitudes towards English language learning and using computers and the Internet to study. Then, the interviews were analyzed and interpreted by coding under pre-determined headings obtained through interview questions. The basic codes in the analysis were language learning strategy use, motivation, taking responsibility for learning and engaging in out-of-class study. To illustrate, under the language learning strategy use code, memory, cognitive, compensation, metacognitive, affective and social strategies were investigated. Furthermore, regarding learners' motivation levels, their participation in classroom activities as well as out-of-class activities were focused on in detail.

In semi-structured interviews, the questions outline the areas within which the students are free to report and the researcher should keep the students on the topic, probing to help students clarify their ideas to ascertain what they mean (Wenden, 1991, p.84). Therefore, although there were predetermined interview questions, these questions were expanded during the interview to help the interviewees to make them clearer. To illustrate, when the students in the-post interviews were asked to talk about what they most liked about studying English on the computers and the Internet, they were also encouraged to talk about why they liked the things that they mentioned although this question was not planned beforehand.

As there were 24 students in the STG, the interviews were limited to 10-15 minutes in order for the interviews to be analyzed effectively. Keeping the students level of spoken language in English in mind, the interviews were done in Turkish to collect clearer information and help the students feel comfortable during the interview. The interviews were recorded and the relevant parts were transcribed and translated into English. Pseudonyms are used to report the interview data results in this thesis study.

3.5.3. E-Learning Diary

Richard (2001) highlights that diaries and journals may help learners to keep an ongoing record of their impressions and experiences of a course. Moreover, he added that they provide relatively detailed and open-ended information and capture information that may be missed by other means. Furthermore, Oxford (1990) comments on the importance of diaries stating that diaries and journals are a type of self-report allowing students to keep track of their feelings, thoughts, achievements, and problems as well as their impressions of teachers and classmates (p.198). Taking all these things into consideration, the teacher-researcher created a forum on the website that she set up for the class and this forum page gave the students a chance to communicate with each other through writing and posting their ideas. At the end of each week during the language learning strategy training, she created a new forum called the English Learning Diary, inviting the students to write a paragraph talking about both their negative and positive experiences on learning English and using the Internet and computers to study English during the week. They were encouraged to mention what they enjoyed during the week, what kind of new things they had learned and what kind of problems they had encountered regarding their English learning and activities and homework done on the computers and the Internet. Additionally, they talked about their weaknesses and strengths regarding the things that they learned in the previous week. The data gathered via the e-learning diary were analyzed and interpreted by coding under pre-determined headings which were language learning strategy use, motivation, taking responsibility for learning and engaging in out-of-class study.

3.5.4. Observation

Observation, as one of the forms of qualitative data collection tools, is defined by Brown (1995) as an instrument usually involving watching an individual or a small number of individuals, and recording the behaviors that

occur (p.48). One type of observation was used in this study. It was participant observation done by the researcher herself (Cohen, Manion & Morrison, 2000). Moreover, the instructor of the NSTG was the informant who weekly reported her observation findings to the teacher-researcher.

The participant observer done by the teacher-researcher wrote down her observation findings during the five-week language learning strategy training through web-based instruction. Wenden (1991) stresses the importance of observations especially in language learning strategy training by saying that some limited information on students' learning processes may be gained by observing them in the classroom as they perform a range of language learning and or communication tasks (p.80). Focusing on this aspect of observations, the teacher-researcher observed the students' both verbal and nonverbal behaviors to see how they use language learning strategies when working on tasks in the classroom. Observation was necessary for the teacher-researcher because of the fact that the answers given to the language learning inventory were learner based. Therefore, the teacher-researcher needed observation to compare the results of the questionnaire and support them with the help of observation findings. Additionally, at the end of each week, the teacher-researcher interviewed the teacher of the NSTG to compare two groups in terms of their motivation levels, responsibility taking for their own learning, out-of-class learning and language learning strategy use. The data gathered through observation yielded valuable information which was combined with the questionnaire and interview results to be used to answer the research questions.

3.6. Data Analysis

Both quantitative and qualitative analyses were utilized in this thesis study. Descriptive statistics (means, standard deviations, frequencies and percentages) of the pre- and post-questionnaires were analyzed using Statistical Packages for Social Sciences (SPSS). For Likert-Scale type questions, Wilcoxon Matched Pairs Signed Ranks Test was used in SPSS to determine the changes in students' study

skills in English language learning. For the bio-data type questions in the first part of the questionnaire, frequencies and percentages were calculated and shown in tables.

As far as qualitative analysis is concerned, common points were found in the data collected via the interviews, e-learning diary and observation done throughout the language learning strategy training through web-based instruction and then, they were interpreted. In order to find the common points in the data collected, the categorization technique was used as a qualitative method to analyze the interview results and e-learning diary. In the categorization technique, the answers given to both pre- and post-interview questions were arranged according to the significant common points of the study which are learners' language learning strategy use, motivation, taking responsibility for learning, and out-of-class study.

CHAPTER 4

RESULTS

4.1. Introduction

This chapter presents the results obtained from the statistical analysis of the questionnaire which was analyzed through descriptive statistics by using SPSS. The data gathered from interviews, e-learning diary and observations done throughout the five-week language learning strategy training through web-based instruction complemented the quantitative data and it is also presented throughout the chapter. The overall analysis of the data was carried out in alignment with the research questions of the study. While the quantitative data explained the overall tendency of the participants, the qualitative data were utilized to support and gain deeper insight about the questionnaire findings. The research questions asked in this study are as follows;

- 1- To what extent does the application of computer-assisted language learning increase learner autonomy in language education?
 - a- To what extent do learners develop their language learning strategy use through computer-assisted language learning?
 - b- To what extent does learners' motivation increase through computer-assisted language learning?
 - c- To what extent do learners' accept responsibility for learning in computer-assisted language learning?

- d- To what extent do learners perform out-of-class activities in computer-assisted language learning?
- 2- Is there a significant difference between the groups of learners who get web-based instruction and who do not regarding autonomy development?
- 3- How does the application of computer-mediated language learning affect the learners' perceptions of English Language Learning on the computers and the Internet?

4.2. The Role of Computer-Assisted Language Learning in Fostering Learner Autonomy

The first research question seeks to determine to what extent the implementation of CALL helped the students who are involved in the language learning strategy training through CALL to develop autonomy in their language learning process. In order to accomplish this aim, data were collected mainly through the questionnaire. However, interview, e-learning diary and observation results were also used to support the findings of the questionnaire. To address this question, four other more specific questions were asked and analyzed within this question. These four questions helped to prepare a clear picture for the understanding of the role of CALL implementation in promoting learner autonomy since they all addressed essential qualities of becoming autonomous.

4.2.1. The Development of Language Learning Strategy Use through CALL

In order to see the difference between pre-test and post-test results of the STG, a paired sample *t*-test was run. Since the same group was analyzed, the paired sample *t*-test was appropriate. The results of the paired sample *t*-test revealed that there was a significant difference between the pre-test and the post-test results of the STG.

Descriptive analysis of the paired sample *t*-test indicated that for the 24 subjects, the mean score on the post score for Memory (M=3.71), Cognitive (M=3.86), Compensation (M=3.97), Metacognitive, (M=3.78), Affective (3.77) and Social (3,81) are significantly greater than the mean score of pre score for Memory (M=1.75), Cognitive (M=2,04), Compensation (M=2.31), Metacognitive, (M=2.27), Affective (2.30) and Social (2.25). By looking at the mean scores of strategies, it was concluded that the mean scores of post-test results were higher than the mean scores of pre-test results, which means that the students in the STG developed their use of language learning strategies at the end of strategy training through computers and the internet. (Table 4)

Table 4. Statistics Demonstrating Pre- and Post- Test (SILL) Results of STG

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Memory Strategies of Pre STG	1,7500	24	,33131	,06763
	Memory of Post STG	3,7176	24	,31594	,06449
Pair 2	Cognitive Strategies of Pre STG	2,0417	24	,40893	,08347
	Cognitive of Post STG	3,8690	24	,25596	,05225
Pair 3	Compansation Strategies of Pre STG	2,3194	24	,49859	,10177
	Compensation of Post STG	3,9722	24	,30561	,06238
Pair 4	Metacognitive Strategies of Pre STG	2,2778	24	,49798	,10165
	Metacognitive of Post STG	3,7824	24	,18383	,03752
Pair 5	Affective of Pre STG	2,3056	24	,50521	,10312
	Affective of Post STG	3,7778	24	,26314	,05371
Pair 6	Social of Pre STG	2,2569	24	,47645	,09725
	Social of Post STG	3,8125	24	,33446	,06827

Further analysis of the results manifested that the answers given to all strategy categories in pre-test by the students in the STG remained under 2.4 which meant low language learning strategy use by the students. Therefore, as the mean score of their answers is below 2.5, it could be concluded that the items that were asked in the questionnaire were usually not true of them. However, the

answers given to all strategy categories in post-test by the students in the STG were above 3.71 meaning high language learning strategy use by the students. Thus, by looking at the mean score of the post-test results, it could be concluded that students developed their language learning strategy use at the end of five-week training through CALL. As the language learning strategy use is usually associated with learner autonomy, it may be inferred that regarding language learning strategy use, the students in the STG developed autonomy in their learning.

4.2.1.1. Memory Strategies

In memory strategies the most important thing is meaning, that is, arrangement and associations in the target language must be personally meaningful to the learner (Oxford, 1990). Memory strategies got the lowest average ($M=1.75$) part in the pre-test. Corroborating with the results of the questionnaire, the results of the interviews showed a similar pattern in terms of students' memory strategy use. It is not surprising to find out that memory strategies got the lowest average because when the students in the STG were asked what kind of learning strategies they had developed during their previous language learning process, none of them said that they had developed a learning strategy. However, almost all of the students in the STG interviewed put great emphasis on memorization stating that one who had good memorization skill could learn English better. It was seen that the students in the STG viewed language learning as a process restricted to memorization. This is clearly shown by one of the students' comment on his language learning strategy use:

I think I have developed some learning strategies since I started to learn English. For example, I am now much better at memorizing. At the very beginning, it was very difficult for me to learn vocabulary and grammar because I could never keep the new things in my mind. However, now I feel much comfortable when learning vocabulary or grammar as I could easily memorize the new words or patterns in grammar.

By the help of five-week language learning strategy training through CALL, the students in the STG seemed to have developed their memory strategies from $M=1.75$ to a 3.71 mean score. This resulted from learners' intensive memory strategy use during the training. The teacher-researcher observed the students in the STG especially after the second week of the training using new English words in a sentence rather than memorizing them. Furthermore, she witnessed some students in the STG in the classroom closing their eyes when the teacher-researcher was teaching new vocabulary in the classroom. When she asked the students why they were closing their eyes, they reported that they tried to connect the new words to some images or pictures of the word. When the students started to use memory strategies, they also realized how helpful they were when learning English and this was emphasized by Murat during the interview:

Learning English vocabulary or grammar has always been a big problem for me as these two things mean that I have to keep a lot of things in my mind and always remember them. This is very difficult for me. However, by the help of the strategies that we learned in the classroom I realized that learning grammar or especially vocabulary is not a big problem. I have bought a lot of paper in different colors. I cut them into pieces and I write a new word on each of them. In order to remember the new word, I try to associate the color of the paper and the word on it. It is really enjoyable and it really works.

Explicit language learning strategy training through CALL appealed to all of the students with different needs and interests in the STG. To illustrate, Cem was literally a computer addict. He was one of the students who quickly combined his language learning strategy use with his computer use. Once he came with a word file in which he matched that week's new vocabulary with the pictures that he downloaded from the Internet. He stated that he did it because it was a kind of game for him and at the same time he revised for that week's vocabulary. This indicated that the interest in computers and the Internet encouraged this student to study English language vocabulary by using a type of memory strategy.

Finally, item 8 in memory strategies part asked about whether students reviewed their lessons often. This item received one of the lowest mean scores

(2.00) in the pre-test. However, in the post-test, item 8 got the highest mean score (4.25) (Table 5).

Table 5. Descriptive Analysis of Item 8 in Memory Strategies Part of the Questionnaire of the STG

	Mean	N	Std. Deviation	Std. Error Mean
Pair 8. I review English lessons often.(Pre)	2,000	24	,9780	,1996
I review English lessons often.(Post)	4,250	24	,6079	,1241

The underlying reason why the students in the STG started to review English lessons often (item 8 in Memory Strategies) is that the computer-assisted language learning environment both inside and outside the classroom provided the students with a different environment in which the students found novelty, challenge and meaning. Furthermore, as most of the assignments were done on the computers and the Internet, the students were encouraged to review their lessons often. This is also stated by Zeynep as follows:

I did not use to study at home because I thought that it was enough for me what we did in the classroom. However, now I believe that I need to study and review my lessons at home. Spending my time on studying at home used to be boring. However, in the last five weeks, we did a lot of different things on the computers and the Internet both inside and outside the classroom, which helped me to study English and at the same time to review my English lessons in an enjoyable way. Studying on the computers and the Internet is really different and entertaining. I really enjoyed it and I will go on using computers and the Internet to practice English.

As the interview and observation findings verified the findings of the questionnaire, it could be concluded that learners remarkably benefited from the language learning strategy training through computers and the Internet. In addition

to this, they managed to transfer their strategy use to other situations which were not set by the teacher-researcher.

4.2.1.2. Cognitive Strategies

As Oxford (1990) says, cognitive strategies are essential in learning a new language as the main function of cognitive strategies is manipulation or transformation of the target language of the learner. She also adds that practicing among the cognitive strategies stands out as the most important strategy. However, language learners do not really realize how important it is (p.43). Furthermore, reading and listening in the target language and summarizing what you have heard or read will definitely help the language learners. That is, in order for the learners to improve their language, they need to get enough input and they should know how to transform this input.

Items 15, 16, and 23 in the cognitive strategy part of the test, received the highest scores in the post-test successively ($M=4.54$, $M=4.25$ and $M=4.25$). This resulted from the intensive exposure of the students to both written and spoken target language during the strategy training (Table 6).

Table 6: Descriptive Analysis of the Questions 15 and 16 in Cognitive Strategies Part of the Questionnaire of the STG

	Mean	N	Std. Deviation	Std. Error Mean
Pair 15. I watch English language TV shows spoken in English or go to movies spoken in English.(Pre)	2,417	24	,9286	,1896
I watch English language TV shows spoken in English or go to movies spoken in English.(Post)	4,542	24	,6580	,1343
Pair 16. I read for pleasure in English.(Pre)	2,000	24	,9325	,1903
I read for pleasure in English.(Post)	4,250	24	,6757	,1379
Pair 23. I make summaries of information that I hear or read in English. (Pre)	1,667	24	,8681	,1772
I make summaries of information that I hear or read in English.(Post)	4,250	24	,7372	,1505

The analysis of the interview results revealed that more than half of the students said that normally they did not like reading English books and watching movies in English due to difficulty in understanding the target language. However, during the training, each week they watched a movie in English and they were provided with popular American and English TV series and were encouraged to watch them outside the classroom. Furthermore, they did a lot of reading from different types of materials such as newspapers, short stories, articles of their interest on the Internet. During the interview, Dilara who had great difficulty in understanding reading texts, pointed out that she greatly benefited from the assignments during the five-week training:

I really do not like reading because I do not understand what I read. However, through your encouragement, I started to read in English. Especially, the reading texts that you assigned us on the Internet were useful and interesting. This revealed that as long as I read something of

my interest, I understand it. Maybe I could improve my reading through reading texts that are interesting and such things are abundant on the Internet.

Cognitive strategies are thought to be processes which are used directly in learning. These strategies enable learners to deal with the information presented in tasks and materials by working on it in different ways (Hedge, 2000). Therefore, it was very important for the learners to acquire these strategies. For instance, when the students were told that it was necessary to use new words both in their spoken and written language, their weekly writing assignments demonstrated that more than half of the students managed to insert new words taught recently into their writing assignments.

Another observation finding compatible with the finding of the questionnaire was that students tended to use English language when communicating outside of the classroom such as while writing e-mails or chatting on the Internet. Item 17, related to writing notes, messages, letters or reports in English, increased from M=1.37 to a 3.16 mean score. There were times when at least 11 students out of 24 used English language when asking something to the teacher-researcher on the online internet chat or they composed their e-mails in English when sending them to the teacher-researcher (Table 7).

Table 7. Descriptive Analysis of Item 17 in Cognitive Strategies Part of the Questionnaire of the STG

	Mean	N	Std. Deviation	Std. Error Mean
Pair 17. I write notes, messages, letters, or reports in English (PRE)	1,375	24	,6469	,1320
I write notes, messages, letters, or reports in English (POST)	3,167	24	,6370	,1300

Further analysis of the questionnaire, interviews and the observation revealed that the students in the STG acquired necessary cognitive strategies and transferred them into their own language learning process and started to use them even in their real lives. That is, they started to opt for the English language when they were sending e-mails to the teacher-researcher to ask about something related to the lessons. Moreover, 13 out of 24 students reported in the post-interviews that they started to watch English movies and 6 out of 24 students said that they began to read English books and newspapers to improve their English language.

4.2.1.3. Compensation Strategies

Compensation strategies also known as communication strategies (Hedge, 2000) are regarded as a crucial point in language teaching and learning. This results from the fact that they enable language learners to make themselves understood or maintain a conversation despite the gaps in their knowledge in the target language (Hedge, 2000, p.79). It is true that it takes some time to get fluent in the target language. Therefore, learners need to know how to get their message across in the target language even if they are not fluent speakers of the language. However, as they lack such kind of strategies, they avoid speaking English, which was reported by Nazlı in the interview:

I do not like speaking in English because when I start to speak in English, I do not remember necessary words. This happens because I do not have enough vocabulary in English. Moreover, I am also afraid of being laughed at as I make a lot of mistakes and I stop to think too much when I am speaking English. Thus, it is better not to speak.

Nazlı was worried about being embarrassed by her friends due to her lack of fluency and accuracy in English language. However, the online classroom created on the yackpack page encouraged learners to talk to each other. As they were alone when they were recording their voices to send online messages to the other members of the online speaking class, they felt comfortable and got used to talking in English with their friends. Furthermore, besides being alone when they

were talking in English through Yackpack, they also had enough time to prepare their answers and reviewed them before sending them. During the interview, 20 students out of 24 reported that although at the beginning they had fears concerning speaking in English with their friends, they were greatly encouraged to communicate in English through Yackpack. Furthermore, in time, they also reported that they had improved their speaking and began to participate in the speaking activities both inside and outside the classroom.

Item 24 was related to using guessing strategies when learning the target language. The mean score of this item (increasing from 2.33 to 4.20) unveiled that the students improved their guessing strategies, which are of paramount importance for a language learner as guessing strategies are highly used especially when users are incompetent language users. Furthermore, item 27 addressed one of the main problems of language learners; that is, reading without looking up every single unknown word in a dictionary. Generally, students were of the opinion that they did not like reading in the target language as they found it boring to read a book with a dictionary. This was the case since students were not aware of the fact that they needed to develop some strategies to read in the target language without a dictionary. However, the mean score of item 27, which increased from 2.20 to 4.29 in the post-test, proved that through intensive training, compensation strategies were also acquired by the students (Table 8).

Table 8. Descriptive Analysis of the Items 24 and 27 in Compensation Strategies Part of the Questionnaire of the STG

	Mean	N	Std. Deviation	Std. Error Mean
Pair 24. To understand unfamiliar English words, I make guesses. (Pre)	2,333	24	,8681	,1772
To understand unfamiliar English words, I make guesses. (Post)	4,208	24	,6580	,1343
Pair 27. I read English without looking up every new word. (Pre)	2,208	24	,7790	,1590
I read English without looking up every new word. (Post)	4,292	24	,6241	,1274

4.2.1.4. Metacognitive Strategies

Metacognitive strategies are thought to be an essential part of language learning. “Metacognitive” means beyond, beside, or with the cognitive. Thus, Oxford (1990) defines metacognitive strategies as actions going beyond purely cognitive devices and they also provide the learners with a way to coordinate their own learning process. Therefore, such strategies remain one of the most important strategies that students should get acquainted with. Learners looking for ways to use English, working hard to be a better learner of English, making a schedule, setting goals, looking for opportunities to study English and noticing their mistakes and making use of these mistakes to learn better are main concerns of metacognitive strategies.

Based on the interview and observation results, before the language learning strategy training through CALL was conducted, half of the students in the STG mainly lacked the willingness to become better language learners who seek different ways to use English and make use of opportunities to improve their English. Thus, the students desperately needed to be shown ways and presented

with opportunities to use and improve their English. Furthermore, about 16 students out of 24 pointed out in the interview that they never managed to plan their time to study English. Thus, they usually failed to fulfill their determined goals. The findings of qualitative data were supported by the quantitative data on the scope that there was a big gap between the mean scores of the metacognitive strategy part in the pre- (2.27) and post-test (3.78) results of the STG.

Language learning strategy training enabled the students to become aware of metacognitive strategies helping them to take a further step in becoming a better language learner. Büşra was one of the students who always complained about the lack of time to study English. With the help of the teacher-researcher, they together made a weekly schedule focusing on the assignments and necessary study that should be done by the student on each day of the week. Furthermore, the student was encouraged to set goals for each week and she was strictly told that she should follow the schedule and fulfill her goals. At the end of the third week of the training, Büşra commented on this experience in e-learning diary as follows:

Last week was very enjoyable and easy for me. I think I got used to doing things on time and accomplishing my goals. For instance, last week, I had to finish an English book, which I think is helpful for my reading before Saturday. Although I got bored when I was reading it from time to time, I did not give up and I finished it on Friday night. I had to do it. Otherwise, I will never be able to improve my reading....

Büşra was determined to become a better learner and it seems from the above statement that she managed it. The students in the STG also explored a wide variety of resources on the Internet, which allowed them to get used to making use of available opportunities such as English language learning websites (BBC), discussion forums, blogs and Yackpack. This also showed the students that coursebooks were not the only materials that should be used to study English. The educational websites available on the Internet broadened the horizons of the learners by exposing them to a rich library on the Internet.

Finally, as the students were engaged in writing in the e-learning diary during the five-week training, they were able to see their progress in English language through reflecting on their learning in each week. This enabled the students to get accustomed to evaluating their progress and accordingly, take necessary precautions. This is a crucial point when learning a language as there is not always a teacher available and thereby, language learners should be equipped with necessary strategies to assess their language learning progress. The teacher-researcher encouraged each of the students in the STG to determine both their weaknesses and strengths at the end of each week of the strategy training. Then, the students were also asked to come up with their own solutions to overcome their weaknesses. All of the students wrote a paragraph talking about their weaknesses and strengths related to that week and suggesting solutions to overcome their weaknesses. Finally, they posted their paragraphs to the discussion forum page under the heading of the English language learning diary. For instance, one of the students talked about how difficult it was for her to write a compare and contrast paragraph which was taught in the first week of the language learning strategy training in her e-learning diary. However, in order to improve her writing, she suggested that she should write more compare and contrast paragraphs and go over them together with the teacher-researcher.

4.2.1.5. Affective Strategies

The term “affective” is related to emotions, attitudes, motivations, and values (Jensen, 1998). When learning a language, it is impossible to ignore learners’ emotions, attitudes and motivation as these factors are believed to help language learning positively. Jensen (1998) highlights the importance of emotions, stating that emotions generate learners’ goals and plans and be the source of energy to accomplish them. Additionally, Sousa (2000) utters that developing positive attitudes in students toward learning enhances interest, increases retention, and should be a major goal of every teacher (p.257). Therefore, it is advisable to teach the learners necessary affective strategies that are going to help them control their

emotions and attitudes about learning (Oxford, 1990). The mean score of the affective strategy part changing from 2.30 to 3.77 unveiled that there was a considerable improvement concerning the affective strategy use by the learners.

The most important opportunities given to the students to develop their affective strategies during the training were the e-learning diary and the discussion forum page. Jensen (1998) claims that good learning engages emotions and feelings. To do this, he suggests the use of journals, discussion, sharing, stories and reflection about things, people and issues that engage students personally. Both the e-learning diary and the discussion forum in this study proved to be useful tools which set a social environment for the learners to meet online to discuss, share, exchange information in the target language. It encouraged the students to reflect on their learning and see what other students were going through in their learning processes. Moreover, when they began to find out about their friends' problems, they realized that they were not the only people who were having problems when learning a language.

According to the overall findings of the interview, the students were found to be uncomfortable when using the language, especially orally. Berika stated that she got extremely nervous when speaking English or sometimes even writing in English due to her lack of fluency and accuracy in spoken English. Therefore, she preferred to be quiet during the lessons. However, she was quite worried about the development of her speaking skill:

I know that I should also get used to speaking English but I cannot do it. I feel nervous and when I want to speak English, my heart starts to beat faster. I am not confident and determined enough to keep going. Thus, I avoid speaking.

Berika was one of the quietest students in the classroom. Through the wide use of the Internet activities and CMC tools (discussion forum and the e-learning diary) for writing and speaking, she managed to overcome her anxiety to some extent within five weeks.

I feel much comfortable when I am speaking English now as I have seen that everybody can make mistakes and not everybody is a fluent speaker of English language. I still get nervous from time to time when I am speaking English but I push it and never give up. I need spoken language, too. Therefore, I will try hard to speak as without practice I would never improve my speaking skill.

Furthermore, the findings of the interviews revealed that 6 out of 24 students did not like learning English due to their negative experiences with their previous English language instruction. Additionally, 8 out of 24 students confessed that they had negative feelings towards English language learning which resulted from the design of the lessons which was said to be boring and monotonous. Based on these findings, it could be concluded that learners' previous experiences determined their feelings, most of which were negative about English language learning.

During the interviews, all of the learners emphasized that CALL activities and CMC tools brought variety, fun and challenge into the classroom and made out-of-classroom assignments more interesting and motivating for them. Providing students with choices, engaging them in the personally meaningful activities such as the e-learning diary and discussion forums, watching movies in the classroom and finally, helping them to overcome their negative feelings towards the English language learning by exposing them to a wide variety of English language practice on the computers and the Internet greatly contributed to the development of affective strategy use.

4.2.1.6. Social Strategies

Sylwester (1994) believes that people are social organisms depending on others for many very important things in life. Thus, he adds that a classroom that capitalizes on the diversity of its students should provide an excellent opportunity for students to engage in activities cooperatively and collaboratively (p.114). As Oxford (1990) points out, language is a form of social behavior, it is communication and communication occurs between and among people. Language

learning thus involves other people, and appropriate social strategies seem very important in this process. During the training, the students were highly encouraged to work cooperatively with each other and especially, allowing them to work together on the Internet appealed to their interests.

Table 9 given below shows the mean scores of items 46 ($M=2.95$), 47 ($M=3.37$) and 50 ($M=4.00$). The table illustrates that the students in the STG developed the most important social strategies. It was observed that students usually felt uncomfortable when they made a mistake in the target language. However, they felt much more uncomfortable when the teacher-researcher attempted to correct their mistakes. For instance, three students who participated in the lessons started to keep quite. When the teacher-researcher asked why they were not participating in the lessons, they stated that they did not want to make any mistakes because they did not like being corrected in front of the other students. Getting students to accept the fact that correcting themselves when they make a mistake or letting other people correct their mistakes is a difficult task. Thus, teachers play a crucial role in this process as correction in language learning is essential. It was observed before the language learning strategy training through CALL that using the target language with peers was another thing that students did not give importance to. Therefore, the teacher-researcher had a difficult time with the students because they refused to participate in the activities that required them to use the target language. However, through providing students with interesting activities, their thoughts about using the target language inside and outside the classroom changed from negative to positive, which was also proved by the mean score ($M=3.37$) of item 47. The students' thoughts about practicing English with other students showed great improvement from the negative to the positive.

Table 9. Descriptive Analysis of Items 46, 47 and 50 in Social Strategies Part of the Questionnaire of the STG

	Mean	N	Std. Deviation	Std. Error Mean
Pair 46. I ask English speakers to correct me when I talk. (Pre)	2,958	24	,9079	,1853
I ask English speakers to correct me when I talk. (Post)	3,958	24	,7506	,1532
Pair 47. I practice English with other students.(Pre)	1,583	24	,7173	,1464
I practice English with other students.(Post)	3,375	24	,5758	,1175
Pair 50. I try to learn about the culture of English speakers. (Pre)	2,042	24	1,1221	,2290
I try to learn about the culture of English speakers. (Post)	4,000	24	,7223	,1474

With the availability of an English language native speaker who held speaking classes with the students at the university, the students in the STG were assigned different tasks aiming to collect information about the culture of the target language. In order to gather information, they not only used the Internet but also interviewed with this native speaker at the university. Further analysis of the interviews and e-learning diary revealed that the students started to develop interest in the culture of the target language and gained confidence when speaking with native speakers of the target language. Additionally, 7 out of 24 students reported that they made some friends from different English speaking countries on ICQ, which is a global community putting people all around the world in touch and chatted with them on the Internet through MSN and ICQ. It was reported by those 7 students that when they met those people on ICQ, they felt themselves confident enough to continue the online conversation and they were not afraid of using English and making mistakes.

4.2.2. Students' Motivation Level and CALL

Okada, Oxford and Abo (1996) emphasize the role of motivation in language learning by stating that motivation helps determine the extent of involvement in learning. The students in the STG were not given a separate questionnaire to measure their motivation levels before and after the language learning strategy training through CALL due to time constraints. However, Oxford and Nyikos (1989, cited in Okada, Oxford and Abo, 1996) say that motivation is usually linked with high-frequency use of language learning strategies. Okada, Oxford and Abo (1996) conducted a study aiming to find out the role of language learning strategy use in motivation. Their study revealed that the more motivated the learners were, the more they used language learning strategies. Similarly, this study also revealed that the students participating in five-week language learning strategy training through CALL had increasing motivation due to the fact that there was a significant increase in their learning strategy use mentioned in the previous section at the end of the training.

More specifically, as stated earlier, affective strategies are related to motivation levels of the learners. As for the difference between the affective strategy use in the pre-test and the post-test, it was clearly shown that the learners' affective strategy use increased from $M=2.30$ to a 3.77 mean score. It could be inferred from this increase that the students involved in strategy training had increasing motivation depending on the mean score ($M=3.77$) of the affective strategy part of the questionnaire which aimed to find out about feelings and emotions of the students. The students were asked to report how they felt when they were using English, whether they were afraid of making mistakes and keep a diary to write down how they feel about learning English.

Furthermore, the students also indicated different motivation levels before, during and after the strategy training. As the teacher-researcher had seven full weeks before she conducted the strategy training, she had the opportunity to observe the students' motivation levels. Before the training was conducted, as the

classes only followed the usual weekly schedule which lacked the use of computers and the Internet, students hardly indicated their enjoyment in English language learning. They usually complained about the attendance requirement, which was viewed as unnecessary. As far as collective work is concerned, almost none of the students seemed to value pair work or group work activities. During these weeks before the intensive strategy training, half of the students were not willing to do their homework or make use of English language learning opportunities as they reported that it was too early to start studying hard. For instance, two students in the STG had difficulty in following the organization of an academic writing; however, they were unwilling to overcome this problem as they thought that they had enough time to develop their academic writing before the TOEFL exam. This comment revealed the fact that they were motivated to learn English only for the TOEFL exam, which was proved by the analysis of the interviews. Furthermore, it was also observed during the first seven weeks that the students seemed to attribute their failures and successes to the teacher rather than attributing them to themselves. In the same vein, the students in the NSTG showed similar patterns regarding their motivational level, which was reported by the instructor of the NSTG.

However, it was stated during the interviews by 19 out of 24 students in the STG that by the help of the implementation of CALL, they did not view attending classes as a duty assigned by the administrator at the university but they saw them as an environment where they were doing a wide variety of activities through collaborating with each other. Additionally, it was reported by 14 of the students in the STG that the use of computers and the Internet brought variety into their English language learning process in the sense that they could find several different activities and materials which were personally relevant to the needs and interests of the students to practice English. They were able to choose the ones that they liked to work on and they did not make use of the ones they did not enjoy. To illustrate, while some students in the STG worked on listening activities on the internet, the others preferred to watch movies to improve their listening

skill. Furthermore, some students in the STG opted for online English newspapers such as *Times* to improve their reading skill whereas the others in the STG preferred reading passages with follow-up questions designed for English language learners on some websites such as *British Council Learn English*.

The further analysis of the interviews also demonstrated that language learning strategies helped the students to realize that language learning was not so hard as long as they knew how to learn it. The introduction of the strategies encouraged them to take a further step in becoming good language learners, which would lead to success. Burak indicated his willingness to learn English and go on learning English through the following statements:

I used to think that English was a very difficult subject. Whenever I wanted to do something, I could never find my way through it. I tended to get confused and stop doing that thing. However, by the help of the ways that you showed us, I was able to understand how I should learn English. Now, I have confidence and I am not afraid of learning English. I know that it is not easy but I could deal with it. I will not stop learning English even after this course is complete.

All of the students first stated in the interviews that they learned English since it was a policy which required all students to get a specific score from the TOEFL test at the university. They wanted to pass the exam and then get into their departments. However, the five-week language learning strategy training broadened their reasons for learning English which was clearly seen in the statements of Ozan:

I used to never value learning English. I hated the idea that I had to learn English like everybody in Turkey to pass an exam. I always asked the question why I should learn English. When we started to use computers and the Internet, I realized that everything was written in English on the Internet. As I want to be a businessman, I will be using the Internet a lot. I will also need to communicate with people all around the world for business. Then, again I will be using English. Therefore, I changed my feelings about learning English. Now, I am not learning English just for the TOEFL test but also for my future career.

It was also found in the interviews that 7 out of 24 students developed an interest in the target language culture and enjoyed talking about other cultures. This resulted from their intensive exposure to the activities related to target language culture and other cultures done on the Internet. Additionally, 20 out of 24 students reported in the interviews that they enjoyed the lessons during the five-week strategy training due to the CALL activity integration both inside and outside the classroom. The CALL environment both inside and outside the classroom was found to be personally relevant, interesting, enjoyable and to some students challenging, all of which increased the motivation levels of the students.

Although the students in the STG were told that their participation in this strategy training was not rewarded with a mark, they showed increasing motivation during and after the strategy training while the students in the NSTG were reported by their instructor to have low motivation levels. To exemplify, the instructor of the NSTG complained about learners' dependence on the teacher and not finding or making use of available opportunities for learning English outside the classroom. Furthermore, it was also observed by the instructor of the NSTG that the students in the NSTG easily lost their interest in the lessons, felt sleepy during the lessons and they were most of the time reluctant to participate in both inside and outside the classroom activities. Depending on the questionnaire, interview and observation results, it could be concluded that the students in the STG showed increasing motivation during and after the strategy training, which contributed to the development of autonomy.

4.2.3. Students' Responsibility Taking and CALL

In order to address this item, the data collected through observation and interviews were thoroughly analyzed. Autonomous learners are willing to take responsibility for their own learning, which plays a crucial role in language learning (Wenden, 1991). It was observed by the teacher-researcher before the strategy training was carried out that the students in the STG were highly teacher-dependent with regard to their language learning. 18 out of 24 students held the

opinion that what they were doing in the classroom was enough for them to develop their English language. In the same vein, the instructor of the NSTG reported that the students in her classroom were not willing to take responsibility for their learning. She also added that even though the students did their homework, they tended to submit their homework or assignments after the deadline.

Learners do not easily accept responsibility for their learning as long as they are not encouraged (Po-Ying, 2007). However, during and after the strategy training, the students demonstrated some types of behaviors which could be related to taking responsibility for their learning. As reported by the students in the STG in the interviews, they always regarded using computers and the Internet in the classroom as a kind of reward due to the fact that using computers and the Internet was of some interest to them. Therefore, whenever the students were asked to turn their computers on in the classroom, they did it without any complaints. Additionally, in contrast to coursebook based activities in the classroom, the students worked on the computers more effectively and efficiently producing a high quality work. To illustrate, the coursebook that the students were using was restricted to a small number of activities. In other words, when students were introduced to a new grammar point, they had to practice the new point through only a few questions which were not enough for the students. However, by the help of the educational English language learning websites such as *British Council Learn English*, the students in the STG had a chance to work on the new grammar point through different types of exercises given on the Internet.

Among the findings with respect to taking responsibility, it was also reported by the students that they realized the limitations of the classroom learning. Thus, working on the computers and the Internet helped them to take advantages of resources available on the Internet. It also became easier for the students in the STG to study the language authentically, that is, they visited several websites whose medium of language was English and they had a chance to reach the target language speakers through some internet chat tools such as ICQ.

The students started to set clear objectives and acted upon them as mentioned by Tolga:

Now, what we are doing both inside and outside the classroom is quite different from other classes. I stay in a dorm and while I am studying for long hours on the Internet, my friends from other classes just do some exercises given by their teachers as worksheets. They are not aware of this rich library on the Internet. I feel myself lucky and I like doing the things that are assigned to us on the computers and the Internet because all these will help me to become a fluent speaker of English language.

Tolga wished to speak English fluently. Therefore, he was willing to do whatever he was given and he regarded himself lucky because he was able to take action upon his determined goal by the opportunities presented in his classroom. Like Tolga, 16 students were observed choosing strategies that were consistent with their objectives and understanding of the nature of the language. For instance, the teacher-researcher noticed 4 students using newly taught vocabulary in an example sentence as they found it difficult to learn new English words. They also shared their example sentences by posting them to the discussion forum.

As for the NSTG, it was stated by their instructor that the students in general were not willing to take responsibility for their learning. However, she also added that she had 7 out of 24 students who constantly talked to her about their weaknesses in the English language and what they should do to overcome them. Although the instructor guided them and showed them the right way, they did not act upon them seriously and they kept complaining about their weaknesses. For example, two of the students in the NSTG asked their instructor what they could do to improve their English grammar as they found it difficult to understand. The instructor of the NSTG suggested that they should obtain two different English grammar books to work on and use the materials in the Self Access Center at the university. However, she found out that they neither bought the Grammar books nor went to the Self Access Center to study. When she asked the two students why they did not buy the books and go to the Self Access Center, they said that they did not have time to buy the books and study in the Self Access Center. However, they still had some problems in understanding English grammar.

The findings gathered through observation and interviews revealed that unlike the NSTG, the students in the STG showed signs of taking responsibility both through their statements and behaviors.

4.2.4. Out-of-class Study and CALL

Out-of-class study is another component of learner autonomy. Gao (2008) states that English teachers are often constrained by several factors such as an official curriculum, coursebooks, teaching objectives and class hours. He also adds that teachers tend to focus on learning results alone, especially exam results. Thus, learners' capacity for autonomous learning is neither recognized nor focused on (p.6). Field (2007) also claims that English language learners, apart from a few pages of worksheets, are not provided with opportunities for out-of-class study.

On the contrary to what is stated above, the students in the STG were introduced with a couple of opportunities for out-of-class study by means of computers and the Internet. On the whole, the findings collected through interviews and observation revealed that the students were quite content with the opportunity that they got to improve all their skills even when they were at home without the presence of a teacher. 19 out of 24 students articulated that they did not like the idea of sitting in the Self Access center at the university after their classes finished as they felt tired. However, the language learning materials available on the Internet exposed the students in the STG to the target language at home. During the interview, Utku explained how comfortable he felt when he was studying English:

I know that my English is not really good, thus, I have to study hard. However, I have to find appropriate materials to improve my English and such things are available in the Self Access Center. I could never do it. I have never thought before that computers and the Internet offer a wide range of materials for one who wants to study English. I really enjoyed especially being able to study in my room at home by the help of something of my interest, computers and the Internet.

Furthermore, Onur also commented on how his listening skills improved by the help of computers and the Internet thanks to their flexible use. Onur had some problems with his listening skill and the teacher-researcher suggested that he should go to the Self Access Center to do some listening activities after classes. However, he had to take care of his little brother after classes, therefore, it was impossible for him to study after the classes were over. When he was introduced to some listening websites like <http://www.esl-lab.com>, he had a chance to do some listening activities at home on the Internet, which helped him to improve his listening skill.

The students in the STG were greatly encouraged to be involved in out-of-class study through CALL and CMC tools, which increased the students' awareness with respect to the importance of continuing their learning outside the classroom.

4.3. The Language Learning Strategy Use Difference between the STG and the NSTG

In order to see the difference between two groups', the STG and the NSTG, pre-test and post-test results, an independent sample *t* test was run. An independent sample *t*-test establishes whether the means of two unrelated sample differ by comparing the difference between the two means with the standard error in the means of the different samples (Miller, 2002). Under the assumption of two unrelated groups, independent sample *t*-test was used. Levene's test evaluates the assumption that the population variances for the two groups are equal. If the Sig. value is bigger than .05, it is concluded that the equality of variance assumption is not violated (Green & Salkind, 2005). First, the pre-test results are compared and then, the post-test results of both groups are presented.

4.3.1. Pre-Test (SILL) Results and Pre-Interview Results

Both the STG and the NSTG were given SILL to determine how many of the strategies in the questionnaire the students were using before the implementation of language learning strategy training through CALL. A mean of all participants in the range of 3.5-5.0 on an SILL item is thought to reflect high use of that strategy, 2.5-3.4 medium use and 1.0-2.4 low use (Oxford & Burry-Stock, 1995). As shown in table 10 below, the mean scores of the answers given to memory, cognitive, compensation, metacognitive, affective and social strategies by both of the groups varied between 1.75 and 2.69 in the pre-test (Table 10). According to independent t-test results, except for memory and cognitive strategies, there was no significant difference among other strategy groups of both groups. This indicated that both groups, like their educational backgrounds, were very similar in terms of their language learning strategy use before the STG was given language learning strategy training through CALL. It is clearly recognized that in all strategy types, the NSTG employed more strategies when compared with the STG. This was important for the teacher-researcher in order to see the impact of the language learning strategy training through CALL on the learners' strategy development in the STG. Additionally, the answers given to each strategy type did not show any variation and almost all of the answers fell in the low use category. The following table displays the six categories with the mean scores and standard deviation.

Table 10. Statistics Indicating Pre-Test (SILL) Results of the STG and the NSTG**Group Statistics**

Groups		N	Mean	Std. Deviation	Std. Error Mean
Memory Strategies	Pre STG	24	1,7500	,33131	,06763
	Pre NSTG	24	2,2546	,33169	,06770
Cognitive Strategies	Pre STG	24	2,0417	,40893	,08347
	Pre NSTG	24	2,6935	,53472	,10915
Compensation Strategies	Pre STG	24	2,3194	,49859	,10177
	Pre NSTG	24	2,4583	,41775	,08527
Metacognitive Strategies	Pre STG	24	2,2778	,49798	,10165
	Pre NSTG	24	2,4722	,37394	,07633
Affective Strategies	Pre STG	24	2,3056	,50521	,10312
	Pre NSTG	24	2,4722	,37394	,07633
Social Strategies	Pre STG	24	2,2569	,47645	,09725
	Pre NSTG	24	2,5119	,43355	,08850

It is not surprising to find out that almost all students responding to the questionnaire lacked necessary language learning strategies as according to Wenden (1991), language learning strategy use remains restricted as long as learners are not trained to acquire these strategies. Then, the low use of language learning strategies revealed by the results of the questionnaire suggests that almost none of the participants were introduced to such learning strategies in their previous language education. Finally, the strategies that the students in both the STG and the NSTG reported using could be the strategies the participant-students acquired throughout their experience on language learning.

4.3.2. Post-Test (SILL) Results, Post-Interview Results, E-learning Diary and Observation Done throughout the Five-week Language Learning Strategy Training through CALL

Both of the groups were given SILL at the end of the five-week language learning strategy training through CALL. Furthermore, the students in the STG were also interviewed to gain insight about what they most liked about the training through CALL, what they least liked about the training through CALL,

whether they developed language learning strategies and whether these strategies helped them when they were learning English.

As it is shown in Table 11, on the basis of the mean scores, there were significant gaps between post scores of the STG and the NSTG. While the post scores of the STG were between 3.71 and 3.86, the post scores of the NSTG were between 2.11 and 2.65. The mean scores of the STG implied that students reported high use of language learning strategies. Based on the findings of the post scores of the STG and the NSTG, there were significant mean differences between each strategy for two groups. Since the significance levels for each group (0,000) was smaller than the p value (0.05), it was concluded that there was a significant difference between the STG and the NSTG in terms of their language learning strategy use (Table 11).

Table 11. Statistics Indicating Post-Test (SILL) Results of the STG and the NSTG

Group Statistics

Groups		N	Mean	Std. Deviation	Std. Error Mean
Memory Strategies	Post STG	24	3,7176	,31594	,06449
	Post NSTG	24	2,1157	,28840	,05887
Cognitive Strategies	Post STG	24	3,8690	,25596	,05225
	Post NSTG	24	2,3899	,26474	,05404
Compensation Strategies	Post STG	24	3,9722	,30561	,06238
	Post NSTG	24	2,4722	,44141	,09010
Metacognitive Strategies	Post STG	24	3,7824	,18383	,03752
	Post NSTG	24	2,3708	,31551	,06440
Affective Strategies	Post STG	24	3,7778	,26314	,05371
	Post NSTG	24	2,6597	,31653	,06461
Social Strategies	Post STG	24	3,8125	,33446	,06827
	Post NSTG	24	2,6111	,26314	,05371

The difference between the two groups stemmed from the fact that language learning strategies were explicitly taught to the students in the STG by the help of computers and the Internet, which attracted the attention of the students during the

training. However, the students in the NSTG did not show any significant difference in terms of their language learning strategy use at the end of the fifth week as they were not given training on language learning strategies.

Furthermore, during the language learning strategy training, it was observed and reported by the instructor of the NSTG that unlike the STG, the students in the NSTG displayed lower motivation during the classes and they were also reluctant to take responsibility for their learning as they tended to be more teacher-dependent during the classes. Furthermore, they also refused to engage in activities outside the classroom as they said that they were already doing a lot of things in the classroom and thus, they needed some free time for themselves after the classes finished. That is, the students in the NSTG had a tendency to spend their time after classes on their hobbies instead of studying English.

4.4. Students General Perceptions about English Language Learning through CALL

The third research question aimed to reveal the feelings and ideas of the learners in the STG about studying English on the computers and the Internet. The analysis of the quantitative data indicated that students' feelings about web-based language learning were positive. The analysis of the interviews revealed that computers and the Internet helped the students to find their own ways of English language learning. The main problem of the students in the STG was that they did not know what and how to study, which was also supported by the results of the initial questionnaire as the mean score of the answers given is below 2.5. This means that the students in the STG had a low language learning strategy use before the strategy training was given.

Moreover, this web-based instruction changed the traditional classroom environment which really motivated the learners. It was reported by the students at the beginning that 50-minute lesson was quite long and most of the students admitted that they could not keep themselves motivated from the beginning to the end of the lessons. However, they stated that using their laptops and the Internet to

perform some activities in the classroom helped them keep engaged in the lessons. Mete who got easily bored and felt sleepy during the lessons talked about his increased motivation during the strategy training:

Teacher, you know I hate English because of one of my previous English instruction, but you helped me a lot to love English again. However, I am not a person who sits in the classroom and listens to teacher 50 minutes. I hate it. There should be something different from time to time to catch my attention. I love computers and internet a lot. When we started to do activities on the internet, I started to enjoy lessons a lot. Moreover, it helped me to see my potential; I have seen that if I am interested in what I am doing, I can learn. I learn and I understand. That's great. Thank you.

Moreover, the language learning strategy training through CALL not only contributed to the development of learner autonomy but also helped the students in the STG to explore the world of computers and the Internet. There were some students coming from rural areas of Turkey and they had never used a computer/laptop before. At the very beginning, they panicked, and they said that they did not really know how to use a laptop. Additionally, they even said that they did not have an e-mail account. During the interviews and in e-learning diaries, it was reported by the learners that although it was not very easy for them to deal with technology, it was very helpful for them to get to know computers and the Internet as they would be using computers and the Internet throughout their lives. Arda talked about how he improved his computer skills during the five-week study:

This is good for me because when I start to study in my department I will have to use my laptop a lot and the experience with computers and the Internet that I have gained with you is invaluable for me.

During the interviews, the students in the STG had a few complaints about studying on the computers and the Internet throughout the five-week web-based instruction. However, those complaints did not imply that they developed negative feelings towards the web-based learning which was emphasized by Can:

I really enjoyed doing a lot of useful things for the benefit of my English language. However, from time to time I felt really tired and nervous as I found it difficult to catch up with the pace. However, I believe that I really got helpful tips about how to study English.

During the strategy training, the students in the STG were asked to use the websites chosen for them by the teacher-researcher. However, it was inevitable for them to come across different English language learning websites, which were untrustworthy and included low-quality materials. In general the students complained about such websites that misguided them. Some other problems with computers and the Internet that were reported during the interviews were slow internet connection, viruses, and computer breakdown, which caused frustration due to delay in some of their assignments.

Despite some complaints about the computers and the Internet, the STG students were content to utilize computers and the Internet to learn and practice English, which was also proved by the qualitative data gathered through interviews, observation and the e-learning diary.

The next section will focus on the discussion of the findings and conclusions drawn from these findings in reference to each research question.

CHAPTER V

CONCLUSION and DISCUSSION

5.1. Introduction

This chapter will present a summary of the findings and the conclusions drawn from these findings with reference to the research questions. Moreover, the limitations of the study, suggestions for the implementation of the results and suggestions for further research will be discussed in this chapter.

5.2. Summary of the Study

In this study, information about the role of CALL in fostering learner autonomy was gathered. In order for the study to reach its aim, four areas of learner autonomy which were language learning strategy use, motivation, taking responsibility and engaging in out-of-class study were focused on within the context of CALL.

In order to address the research questions in this study, five data collection instruments were utilized: questionnaires, interviews, observation, e-learning diary and five-week language learning strategy training via CALL. The data gathered were analyzed both quantitatively and qualitatively. A t-test was conducted on the questionnaire to determine the statistically significant differences between the pre-test and post-test results of the STG and the NSTG.

5.3. Findings

This section discusses the findings of the study with regard to the research questions and the relevant review of literature. Each section deals with one of the research questions.

5.3.1. The Role of Computer-Assisted Language Learning in Fostering Learner Autonomy

The aim of the first research question was to determine to what extent the use of CALL helped the students, who were involved in the language learning strategy training through CALL, to develop autonomy in their language learning process. The students' use of language learning strategies including memory, cognitive, compensation, metacognitive, affective and social strategies, their motivation levels, responsibility taking and out-of-class study were further analyzed as part of the first research question.

5.3.1.1. The Development of Language Learning Strategy Use through CALL

The analysis of the data collection instruments revealed that the use of computers and the Internet helped the students in the STG to improve their language learning strategies, which are essential when learning a language. Before the implementation of language learning strategy training through CALL, the students in the STG reported that they only used a few strategies when learning the English language. This finding proved that the students were not taught or introduced to language learning strategies in their previous English language classes. As Grenfell & Harris (1999) suggest, strategy instruction should be integrated into everyday lessons and they should be taught explicitly through collaborative learning. It is believed that explicit language learning strategy training and the interactive environment of computers and the Internet helped the learners develop language learning strategies. As the learners in the STG developed their use of language learning strategies, it can be concluded that the students took a further step regarding their autonomy development.

There has always been a correlation between language learning strategy use and learner autonomy (Wenden, 1987, Cohen, 1998, Bull & Ma, 2001). In his study, Jang (1998) aimed to promote learner autonomy among university students.

He integrated language learning strategy instruction into classroom teaching. His findings revealed that encouraging learners to acquire language learning strategies leads learners towards developing autonomy as they develop their own self-direction in their learning process. Similarly, the teacher-researcher of this study combined the language learning strategy instruction with the content of English language course. Through this experience, the learners in the STG demonstrated a high tendency towards learner autonomy with regard to their use of language learning strategies. As in Jang's (1998) study, the findings of this study yielded to the conclusion that the development of language learning strategies led learners in the STG towards developing autonomy as they developed their own self-direction in their learning process. Furthermore, the findings of this study supported the positive role of CALL in developing learner autonomy in the sense that the learners in the STG used computers and the Internet when practicing language learning strategies. It can be concluded that as computers and the Internet matched with the interests of the students, which was reported by the students, the development of language learning strategy use was fostered greatly during the training. Especially, the language learning strategies used by the learners in written and spoken language showed great improvement thanks to CMC tools' social interactivity.

Depending on the findings of this study, it could also be argued that when given the opportunity, the students were ready to use language learning strategies to modify their learning environment and aspects of their learning process. Additionally, as Rivers (2001) states, the accurate use of such language learning strategies to control the language learning process and the learning environment is a feature of independent learning. Therefore, in order for such learning to occur, learners must be aware of their needs and have freedom to take action to meet those needs. Within the context of this study, it could be claimed that such environment was created through the implementation of CALL where the students in the STG had a wide variety of choices to use when working on the target

language by using the language learning strategies matching with their learning styles.

The results of the gathered data proposed that the learners in the STG increased their use of language learning strategies including memory, cognitive, compensation, metacognitive, affective and social strategies leading them towards autonomy in language learning. The implications of the findings in this study revealed that students normally were open to develop language learning strategies as long as they were consciously made aware of them. Moreover, such training can be more fruitful if the training is integrated into something that is of learners' interest such as computers and the Internet that were used in this study. Furthermore, the positive results of the study could stem from the fact that computers and the Internet have a unique potential to help language learners to develop such strategies so as to become more independent in language learning. In conclusion, it is hard to claim that the learners totally put all of those language learning strategies into use; however, it can be concluded from the results of the study that the learners participating in the study increased awareness in using these strategies, which helped them to meet their own needs outside the classroom in the absence of the language teacher.

5.3.1.2. Students' Motivation Level and CALL

Motivation levels of students are another aspect associated with learner autonomy (Dickinson 1987, Ushioda, 2000). The analysis of the triangulated data in this study demonstrated that the students in the STG showed increasing motivation during and after the strategy training although they were told that their participation in this strategy training would not be rewarded with a grade. As reported by the students in the STG and observed by the teacher-researcher, their participation in the activities during the classes and willingness to carry out out-of-class activities proved that their motivation levels were higher during the training than their motivation levels before the language learning strategy training through CALL was implemented.

More specifically, as Oxford (1990) states, affective strategies are associated with students' motivation levels. This is also supported by the t-test results of the pre-questionnaire and the post-questionnaire given to the students in the STG in this study. The t-test results of the pre-questionnaire and post-questionnaire illustrated a statistical significant difference regarding the increase in the use of affective strategies at the end of the language learning strategy training through CALL. It is believed that the use of computers and the Internet both inside and outside the classroom encouraged learners to be involved in the English language learning and language learning strategy training process more than they did before the training. It is thought that the use of computers and the Internet brought variety, fun and challenge both inside and outside the classroom encouraging the students in the STG to make use of something of their interest for the benefit of their language development.

Motivation and language learning strategy use are also associated within the development of learner autonomy. Oxford and Shearin (1994) state that motivation directly influences how often students use language learning strategies, which play a crucial role in developing autonomy. In their study, Okado, Oxford and Abo (1996) found out that total strategy use was significantly associated with intrinsic motivation, effort, and desire to use the language. This meant that overall strategy use was directly tied to motivation and vice versa. Furthermore, Wharton's (2000) study revealed that the degree of motivation had the most significant main effect on the use of language learning strategies. Within the context of this study, it could also be claimed that with the development of language learning strategies, the learners increased their level of motivation.

According to Ushioda (2000), there is a close correspondence between learners' intrinsic motivation and learner autonomy. As intrinsic motivation is determined by personal needs and interests, by the development of skills in their natural context of use, by having freedom, control and choice (Ushioda, 2000), it could be argued within the context of this study that the students in the STG had the opportunity to practice the characteristics of intrinsic motivation through using

computers and the Internet to study English. That is, the students in the STG had a sense of personal ownership of the process of learning and freedom to match the content of the learning to their interests and concerns through collaborative work on the computers and the Internet. Therefore, it can be concluded that motivating the students in the STG intrinsically helped to promote the practices of autonomy.

By looking at the teacher-researcher's observation with regard to the learners' participation inside and outside the classroom, affective strategy results and overall language learning strategy development and engaging intrinsic motivation, it is believed that the students in the STG increased their motivation during the language learning strategy training. This finding yielded to the conclusion that as students had higher levels of motivation, they took a further step in becoming autonomous in their language learning process.

5.3.1.3. Students' Responsibility Taking and CALL

Taking responsibility in the language learning process is one of the most important issues in developing learner autonomy (Wenden, 1991). As Po-Ying (2007) states, learners do not easily accept responsibility for their learning as long as they are not encouraged. Thus, the findings of this study revealed that although it was observed before the strategy training was implemented that the students in the STG were highly teacher-dependent with regard to their language learning, during the language learning strategy training, the students in the STG changed their behaviors gradually from being teacher-dependent to independent in their learning process.

The analysis of the findings also revealed that the use of computers and the Internet provided the learners in the STG with options in language learning as the students were normally limited to coursebooks both inside and outside the classroom. As the computers and the Internet offer a wide variety of language learning materials and tools, the students in the STG benefited from the opportunity of practicing taking responsibility for their learning in different settings. Not only during the classes but also outside the classroom, they were

quite willing to carry out the things they were assigned to and submitted their assignments properly and on time. This also helped the flow of the language learning strategy training through CALL and there were not any delays regarding the assignments.

It is believed that computers and the Internet, which are widely used in the world appealed to the interests of the students in the STG and both consciously and unconsciously helped them develop responsibility for their language learning. Furthermore, by providing the students in the STG with necessary steps in using computers and the Internet for the benefit of their language and strategy development, the teacher-researcher raised awareness among the students and encouraged them to take responsibility for their own learning. Towards the end of the strategy training and after the training, the students in the STG were more comfortable when working on their own in the class and did not refuse to participate in out-of-class activities as they also built up confidence in themselves during the strategy training.

The strategy training was effective in creating a context in which the students in the STG were able to work not only according to their various needs and interests but also responsibly through collaborating with each other in a social environment through CMC tools. Hence, it could be argued that the students in the STG started to accept responsibility for their learning and they displayed some particular behaviors such as making decisions in the learning process, selecting and implementing appropriate strategies, monitoring themselves, all of which promoted the practice of autonomy.

5.3.1.4. Out-of-class Study and CALL

The final item that is related to autonomy development is learner involvement in out-of-class studies. As Gao (2008) states, apart from worksheets and coursebooks with which the students work a lot inside the classroom, the learners do not find many opportunities to use for the benefit of their language development outside the classroom. Therefore, one of the main concerns of this

study was to provide the learners in the STG with different out-of-class activities, which would help the students in the STG develop autonomy in the sense that this would lead them towards searching for different ways of studying and improving the English language.

The teacher-researcher mainly used the computers and the Internet to provide the learners in the STG with activities and materials outside the classroom. It was found that the assignments done on the computers and the Internet were more favorable among the students than the assignments done on paper. The learners in the STG were willingly involved in the activities done through CALL, which yielded the conclusion that computers and the Internet engaged them in out-of-class activities leading towards autonomy development.

In his study, Gao (2008) found out that learners' participation in the community enhanced their autonomous learning and motivated their autonomous learning efforts from a humanistic point of view. Additionally, Sharp, Pocklington and Weindling (2002) carried out a study, the findings of which revealed that outside class activities helped the learners to develop their metacognitive strategies and have increasing intrinsic motivation which developed the sense of autonomy in the learners. Similarly, the findings of this study demonstrated that the students in the STG enthusiastically participated in out-of-class activities, which facilitated the development and utilization of their capacity for autonomous learning.

5.3.2. The Language Learning Strategy Use Difference between the STG and the NSTG

The second research question aimed at pinpointing the difference between the STG and the NSTG autonomy development including language learning strategy use, motivation levels, taking responsibility and out-of-class study. The analysis of the triangulated data revealed that the learners in the STG showed signs of autonomy development when compared with the students in the NSTG. As for the results of SILL of both groups, it was found out that although there was

not a significant difference between the results of the pre-questionnaire, the results of the post-questionnaire revealed that there was a significant difference between the two groups. The students in the NSTG rarely used language learning strategies, which stems from the fact that language learning strategy use depends on the amount of explicit instruction students get. Furthermore, the significant difference between the post-questionnaire results of both groups implies that explicit language learning strategy training through CALL reached its aim as the students in the STG started to use a wide variety of language learning strategies. Moreover, in light of the findings, it can be argued that the appealing and interactive environment of CALL proved to be helpful regarding the development of autonomy in language learning.

As for the motivation levels of the students, it was found that the students in the NSTG had lower motivation when compared with the students in the STG. The students in the NSTG were unwilling to do out-of-class activities, which proved that they were unwilling to take responsibility for their learning. Moreover, they were reported to be reluctant to act independently both inside and outside the classroom. Finally, as it was found within the context of previous studies that learners who use a wide range of language learning strategies are also motivated students, it may be argued that the learners in the NSTG were not as motivated as the students in the STG.

Additionally, the students in the NSTG did not use computers and the Internet to learn and study English, their English classes were mainly dependent on the coursebooks and related materials. Then, it can be claimed that lack of variety and language learning strategy use in their language learning process resulted in low motivation, resistance to take responsibility for learning, and little involvement in out-of-class activities. Therefore, it can be concluded that the implementation of CALL to develop language learning strategy use in the STG yielded effective results in the sense that the students in the STG showed extensive use of language learning strategies, they were more motivated, more willing to take responsibility for learning and more enthusiastic about out-of-class

activities. It can also be claimed that CALL environment established the necessary conditions for learner autonomy to develop. Therefore, the students in the STG benefited from that environment and showed signs of autonomy in their language learning process.

5.3.3. Students' General Perceptions about English Language Learning through CALL

The analysis of the qualitative data revealed that the students in the STG had positive feelings about studying on the computers and the Internet. In general, although some of the students had gone through some technological problems during the training, there were no significant negative changes in students' attitudes towards web-based independent learning. It was also found that the students in the STG started to acquire essential properties of being autonomous, which were language learning strategy use, higher motivation, taking responsibility for learning and engaging in out-of-class study.

The analysis of the e-learning diary and interviews unveiled that the students in the STG enjoyed the language learning strategy training through CALL even though they had technical problems due to their inadequate computer skills. Moreover, the students in the STG had the opportunity to explore the educational sites and research engines on the Internet, realizing that the Internet can be used to study the English language. Furthermore, it was reported by the students that letting them communicate in English via CMC tools such as blogs, discussion forums and internet chat helped them to become more self-confident and motivated to study on their own.

Finally, as Little (1991) states, as long as students are provided with suitable means so as to manage their own learning, they acquire the qualities of autonomous learning in varying degrees through changing study habits and attitudes. Thus, the strategy training through CALL developed the students' knowledge of the Internet and how they could make use of it for the benefit of their English language. Additionally, the students in the STG realized that they

were not restricted to the coursebooks to study English. Thus, they enjoyed the idea of developing their own methods of study through computers and the Internet, which facilitated the principles of autonomy in CALL environments.

5.4. Pedagogical Implications

Becoming autonomous learners necessitates readiness on the side of the students, which was also proved by the study of Koçak (2003). 1 out of 24 students in the STG showed resistance to the language learning strategy training through CALL by not carrying out the activities both inside and outside the class. Therefore, it is important for the instructors to know whether their students are ready to develop autonomy. In order to find about the learner readiness for autonomous learning, before the training is given to the students, a questionnaire could be given to them investigating how much they are ready and willing to develop autonomy in English language education language education.

Autonomous learning differs from the traditional foreign language education in the sense that in autonomous learning, the primary focus is on the learners' individual awareness of learning process. As a result, the Curriculum Unit needs to go over the course objectives and design activities so as to promote learner autonomy.

Learning through computers and the Internet requires both the instructors and the learners to have some computer skills in order not to get frustrated during the training. Therefore, before the learners are given training through CALL on learner autonomy, it would be better to train both the teachers and the students to have necessary computers skills so as to follow the English language instruction through CALL.

5.5. Implications for Further Study

This study was designed to explore the place of CALL in fostering autonomous language learners. During the study, it was aimed to develop students' language learning strategies, increase their motivation, encourage them

to take responsibility for their learning and involve them in out-of-class study, all of which lead to autonomy. In light of the findings, a further study could be conducted on the question of to what extent the learners are ready to become autonomous learners before training them to become autonomous learners.

The current study included only whether the students developed necessary language learning strategies, increased their motivation, took responsibility for learning and were engaged in out-of-class study by the help of computers and the Internet to become more autonomous when learning a language. A more comprehensive study could be conducted in order to determine whether the students could also increase their achievement levels by the help of becoming autonomous through using computers and the Internet.

Additionally, the findings of this study might be beneficial for other institutions and language teachers that would like to use computers and the Internet to help learners become autonomous in language learning process. Other institutions and language teachers can also make use of similar language learning strategy training through CALL and by this means; the scope of this study could be enlarged to be implemented in other contexts.

5.6. Limitations of the Study

There are some limitations that need to be acknowledged and addressed regarding the present study that may influence the study findings. The first limitation concerns the curriculum of Preparatory School at the university. As the administration expects high achievement from the students at the end of the school year, they aim to have standardization in terms of following the curriculum strictly. Therefore, eliminating some of the main parts of the book or replacing them with something more appropriate for the aim of the study was not supported.

The second limitation is the work overload. As the learners had to follow the requirements of the general curriculum in order not to fall behind, the students in the STG were overloaded by the tasks and the activities produced for the study. They found it difficult to meet the requirements of the general curriculum and the

study. Some days, they complained that they were quite tired because of a lot of assignments.

The third limitation is related to technology. As all of the activities were carried out on the computers and the Internet, the learners had some problems with their laptops and the Internet connection. Some learners' laptops crashed during the study and they had to wait for them to be fixed. This resulted in the delay of the delivery of some of the assignments. Moreover, there were some learners who were staying in a dormitory and due to the fact that a lot of students stay in a dormitory, the learners staying there had slow Internet connection, which resulted in great frustration.

Finally, the students both in the STG and the NSTG were only given a questionnaire aiming to find out about their language learning strategy use. However, as in this study it was also intended to investigate students' motivation levels, willingness to take responsibility for learning and engage in out-of-class study, a further questionnaire collecting information about these issues should have been given in order for the teacher-researcher to support the qualitative data gathered through observation, interviews and the e-learning diary. Additionally, the students in the NSTG could have been interviewed to gather data about language learning strategy use, motivation levels, responsibility taking for learning and involvement in the out-of-class activities. However, the students in the NSTG were not interviewed due to time constraints.

5.7. Conclusion

By means of triangulation of the data collected, the study indicated that the students developed their language learning strategies, had higher motivation, were willing to take responsibility for learning and engage in out-of-class study with the help of CALL, which helped the learners to take a further step to become autonomous. Providing learners with necessary strategies in language learning and integrating the teaching of these strategies into CALL, helping them to increase their motivation, take responsibility for learning and involve in out-of-class study

will contribute to the success of the students when developing autonomy in language learning.

Incorporating teaching such strategies into the curriculum of an institution and teaching such strategies, increasing their motivation, encouraging them to take responsibility and participate in out-of-class study by the help computers and the Internet, which really offer a suitable environment for autonomy in language learning, will also add to the value of English language teaching programs. Additionally, arranging the frequency and the duration of language learning strategy training according to the workload of the students will let them be more committed to their English language learning and become autonomous learners.

Furthermore, as students pay great attention to whatever they do on computers and the Internet, positive changes in students' feelings as regards working on computers and the Internet will lead to the establishment of a better understanding of the English language learning, and an enjoyable and fruitful environment both for the teachers and the students. A web-based instruction aiming to develop language learner autonomy could be designed at an institution based on the findings of this study.

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APPENDICES

APPENDIX 1

Dear Students,

This questionnaire which is part of a Middle East Technical University, Social Sciences, Department of Foreign Languages, thesis study has been prepared to find out about the current learning strategies of the students.

If there is something that you would like to ask me about the questionnaire, I am available at mutluarzu@yahoo.com

Researcher: Arzu Mutlu

LEARNING STRATEGIES INVENTORY

1. Never or almost never true of me (0%)
2. Usually not true of me (25%)
3. Somewhat true of me (50%)
4. Usually true of me (75%)
5. Always or almost always true of me (100%)

PART 1

1- What is your gender?

- a- Male b- Female

2- What kind of high school did you graduate from?

- a- State High School
b- Anatolian/super high school
c- Foreign Language Private School

3- How old are you?

- a- 18-20 b- 21-23 c- 24-26

4- How long have you been learning English?

- a- 1-5 years b- 6-10 years c- more than 10 years

5- Have you ever been to a country where English is spoken?

- a- Yes b- No

If you answered 'Yes', for what reasons? a- Holiday b- Language Course c- Family

PART 2

A- MEMORY STRATEGIES

1-	I think of relationships between what I already know and new things I learn in English.	1	2	3	4	5
2-	I use new English words in a sentence so I can remember them.	1	2	3	4	5
3-	I connect the sound of a new English word and an image or picture of the word to help me remember the word.	1	2	3	4	5
4-	I remember a new English word by making a mental picture of a situation in which the word might be used.	1	2	3	4	5
5-	I use rhymes to remember new English words.	1	2	3	4	5
6-	I use flashcards to remember new English words.	1	2	3	4	5
7-	I physically act out new English words.	1	2	3	4	5
8-	I review English lessons often.	1	2	3	4	5
9-	I remember new English words or phrases by remembering their location on the page, on the board, or on a street sign.	1	2	3	4	5

B- COGNITIVE STRATEGIES

10-	I say or write new English words several times.	1	2	3	4	5
11-	I try to talk like native English speakers.	1	2	3	4	5
12-	I practice the sounds of English.	1	2	3	4	5
13-	I use the English words I know in different ways.	1	2	3	4	5
14-	I start conversations in English.	1	2	3	4	5

15-	I watch English language TV shows spoken in English or go to movies spoken in English.	1	2	3	4	5
16-	I read for pleasure in English.	1	2	3	4	5
17-	I write notes, messages, letters, or reports in English.	1	2	3	4	5
18-	I first skim an English passage (read over the passage quickly) then go back and read carefully.	1	2	3	4	5
19-	I look for words in my own language that are similar to new words in English.	1	2	3	4	5
20-	I try to find patterns in English.	1	2	3	4	5
21-	I find the meaning of an English word by dividing it into parts that I understand.	1	2	3	4	5
22-	I do not translate word for word.	1	2	3	4	5
23-	I make summaries of information that I hear or read in English.	1	2	3	4	5

C- COMPENSATION STRATEGIES

24-	To understand unfamiliar English words, I make guesses.	1	2	3	4	5
25-	When I can't think of a word during a conversation in English, I use gestures.	1	2	3	4	5
26-	I make up new words if I do not know the right ones in English.	1	2	3	4	5
27-	I read English without looking up every new word.	1	2	3	4	5

28-	I try to guess what the other person will say next in English.	1	2	3	4	5
29-	If I can't think of an English word, I use a word or phrase that means the same thing.	1	2	3	4	5

D- METACOGNITIVE STRATEGIES

30-	I try to find as many ways as I can to use my English.	1	2	3	4	5
31-	I notice my English mistakes and use that information to help me do better.	1	2	3	4	5
32-	I pay attention when someone is speaking English.	1	2	3	4	5
33-	I try to find out how to be a better learner of English.	1	2	3	4	5
34-	I plan my schedule so I will have enough time to study English.	1	2	3	4	5
35-	I look for people I can talk to in English.	1	2	3	4	5
36-	I look for opportunities to read as much as possible in English.	1	2	3	4	5
37-	I have clear goals for improving my English skills.	1	2	3	4	5
38-	I think about my progress in learning English.	1	2	3	4	5

E- AFFECTIVE STRATEGIES

39-	I try to relax whenever I feel afraid of using English.	1	2	3	4	5
40-	I encourage myself to speak English even when I am afraid of making a mistake.	1	2	3	4	5
41-	I give myself a reward or treat when I do well in English.	1	2	3	4	5
42-	I notice if I am tense or nervous when I am studying or using English.	1	2	3	4	5
43-	I write down my feelings in a language learning dairy.	1	2	3	4	5
44-	I talk to someone else about how I feel when I am learning English.	1	2	3	4	5

F- SOCIAL STRATEGIES

45-	If I do not understand something in English, I ask the other person to slow down or say it again.	1	2	3	4	5
46-	I ask English speakers to correct me when I talk.	1	2	3	4	5
47-	I practice English with other students.	1	2	3	4	5
48-	I ask for help from English speakers.	1	2	3	4	5
49-	I ask questions in English.	1	2	3	4	5
50-	I try to learn about the culture of English speakers.	1	2	3	4	5

APPENDIX 2

Sample Pre-Interview and Post-Interview Questions

PRE-INTERVIEW QUESTIONS

1- Do you think you have any special abilities which help you in learning English? If so, what are they? Do you think you lack certain abilities which would help you be a better learner of English? In other words, what abilities do you wish you had?

2- What parts of English are most difficult for you? Which parts are easiest Why?

Reading, Listening, Speaking, Writing, Grammar, Vocabulary

3- Have you developed any special techniques or study habits which help you learn English?

4- Many language learners feel very negative about their learning experiences. They say they feel

a- discouraged

b- frustrated

c- impatient

d- confused by the difficulties of the language learning task.

e- They find it ridiculous expressing themselves in the target language.

f- They feel very shy and helpless.

Have you experienced any of these feelings?

- 5- Have you ever used computers or internet to improve your English?What do you think about using computers and internet for the benefit of your English? Do you think they really work?
- 6- What is your purpose of English language learning?

POST-INTERVIEW QUESTIONS

- 1- What did you most like about using computers and internet to study English both inside and outside the classroom?
- 2- What did you least like about using computers and internet to study English both inside and outside the classroom?
- 3- Do you have any suggestions to improve the process?
- 4- How did you feel in general while studying on the internet?
- 5- Do you think this process helped you to develop language learning strategies and your English language?

APPENDIX 3

LANGUAGE LEARNING STRATEGIES

Direct Strategies

1- Memory Strategies

A- Creating mental linkages

- Grouping
- Associating/elaborating
- Placing new words into a context

B- Applying images and sounds

- Using imagery
- Semantic mapping
- Using keywords
- Representing sounds in memory

C- Reviewing well

- Structured reviewing

D- Employing action

- Using physical response or sensation
- Using mechanical techniques

2- Cognitive Strategies

A- Practicing

- Repeating
- Formally practicing with sounds and writing systems
- Recognizing and using formulas and patterns
- Recombining
- Practicing naturalistically

B- Receiving and sending messages quickly

- Getting the idea quickly
- Using resources for receiving and sending messages

C- Analyzing and reasoning

- Reasoning deductively
- Analyzing expressions
- Analyzing contrastively (across languages)
- Translating
- Transferring

D- Creating structure for input and output

- Taking notes
- Summarizing
- Highlighting

3- Compensation strategies

A- Guessing intelligently

- Using linguistic clues
- Using other clues

B- Overcoming limitations in speaking and writing

- Switching to the mother tongue
- Getting help
- Using mime or gesture
- Avoiding communication partially or totally
- Selecting the topic
- Adjusting or approximating the message
- Coining words
- Using a circumlocution or synonym

Indirect Strategies

1- Metacognitive Strategies

A- Centering your learning

- Overviewing and linking with already known material
- Paying attention
- Delaying speech production to focus on listening

B- Arranging and planning your learning

- Finding out about language learning
- Organizing
- Setting goals and objectives
- Identifying the purpose of a language task (purposeful listening/reading/speaking/writing)
- Planning for a language task
- Seeking practice opportunities

C- Evaluating your learning

- Self-monitoring
- Self-evaluating

2- Affective Strategies

A- Lowering your anxiety

- Using progressive relaxation, deep breathing, or meditation
- Using music
- Using laughter

B- Encouraging yourself

- Making positive statements
- Taking risks wisely

- Rewarding yourself

C- Taking your emotional temperature

- Listening to your body
- Using a checklist
- Writing a language learning diary
- Discussing your feelings with someone else

3- Social Strategies

A- Asking questions

- Asking for clarification or verification
- Asking for correction

B- Cooperating with others

- Cooperating with peers
- Cooperating with proficient users of the new language

C- Empathizing with others

- 1- Developing cultural understanding
- 2- Becoming aware of others' thoughts and feelings

Source: Language Learning Strategies by Rebecca L. Oxford (1990)

APPENDIX 4

SAMPLE ACTIVITIES

ACTIVITY 1: Watching a movie: “Happy Feet”

Aim: The aim of this activity is to provide students with practice in the target language, bring variety into the classroom and encourage students to listen and watch movies in the target language. The language learning activities in this activity are placing new words into a context, recombining, practicing naturalistically, using resources for receiving and sending messages, analyzing expressions, taking notes, summarizing, adjusting or approximating the message, paying attention, delaying speech production to focus on listening and cooperating with peers.

For the following two hours, we are going to watch a movie called Happy Feet. I will give you a handout you will work on when you are watch the movie. Enjoy it ☺

HAPPY FEET

PART 1: Please put the pictures into the correct order as they appear in the movie.



The Amigos, Mumble and Lovelace look out at the alien ships in the distant waters in Warner Bros.



Mumble pretends to reject Gloria in order to keep her from joining him and the Adelies, led by Ramon on a risky mission in Warner Bros.



Miss Viola calls an emergency parent/teacher conference with Norma Jean and Memphis when she discovers that young Mumble cannot sing in Warner Bros.



Gloria and Mumble dance to the beat of Gloria's disco Heartsong in Warner Bros.

F-



Mumble, Lovelace (and the Amigos) meet the Elephant seals in Warner Bros.

G-



Lovelace looks down on the citizens of Adelie Land from high atop his pile of pebbles in Warner Bros.

H-



Mumble tries to squawk out a song with his classmates in Warner Bros.

I-



Noah the Elder gives the commencement speech during the Emperor penguin graduation ceremony in Warner Bros.



J-

The Boss Skua tells Young Mumble about his "alien abduction," while the rest of the gang of Skua birds eye Mumble for their lunch in Warner Bros.



K-

Memphis tries to explain penguin life to his young son, Mumble, while Mumble's mother Norma Jean, looks on in Warner Bros.

PART 2: Read the following sentences and decide whether they are true or false.

- 1- The film establishes that every penguin must sing a unique song called a "Heartsong" to attract a soul mate.
- 2- Mumble cannot sing but dances well.
- 3- The Amigos do not embrace Mumble's dance moves and accept him as a friend, either.
- 4- Lovelace sees the lack of fish as punishment from their god because of Mumble's dancing.
- 5- Mumble promises that he will find the real cause of the famine, and travels across vast territories.
- 6- Mumble fails to attract the attention of the people when he is in a marine park.

7- The movie end with the triumph of the penguins.

PART 3: When you are watching the movie, please write down 7 words that you have not seen before. After you have seen the film, look these words up in a dictionary, write their meanings down, use each of them in a sentence and then please post these sentences and the definitions of the those words to the forum page under forum called “Happy Feet”.

PART 4: Write a brief summary of the movie, your impressions about the movie adding whether you recommend it to other people.

All of the pictures and the information below the pictures were taken from <http://movies.about.com/library/weekly/blhappyfeetpicsa.htm>.

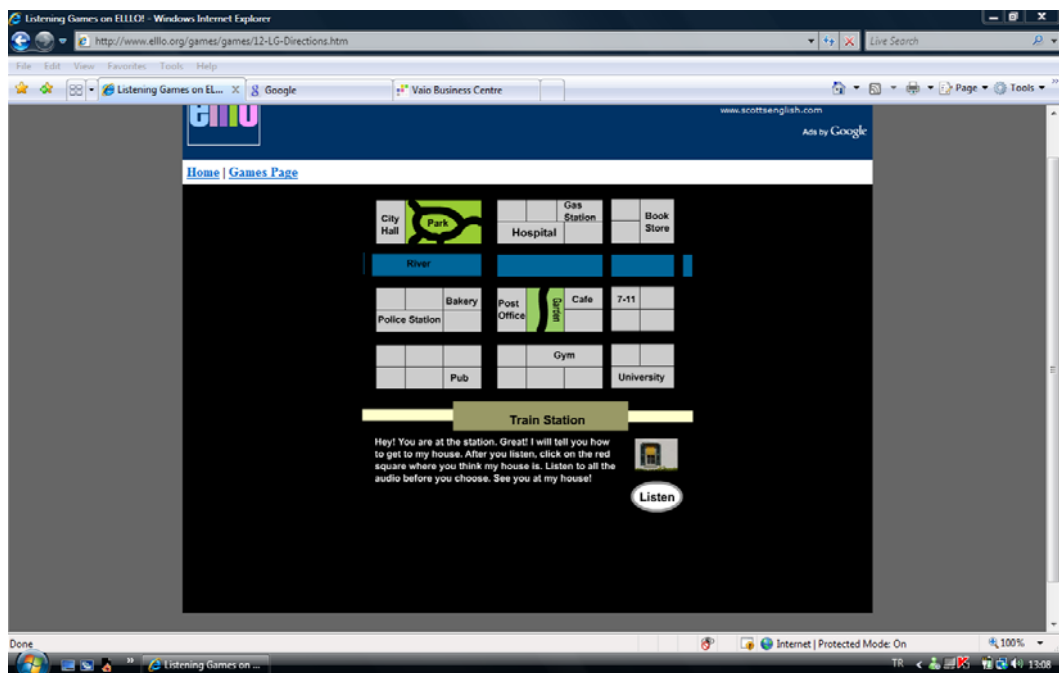
ACTIVITY 2:

Aim: The aim of this activity to combine the week’s topic with an enjoyable activity working on listening for details outside the classroom. The language learning strategies involved in this activity are practicing naturalistically, guessing, using imagery, paying attention, using keywords.

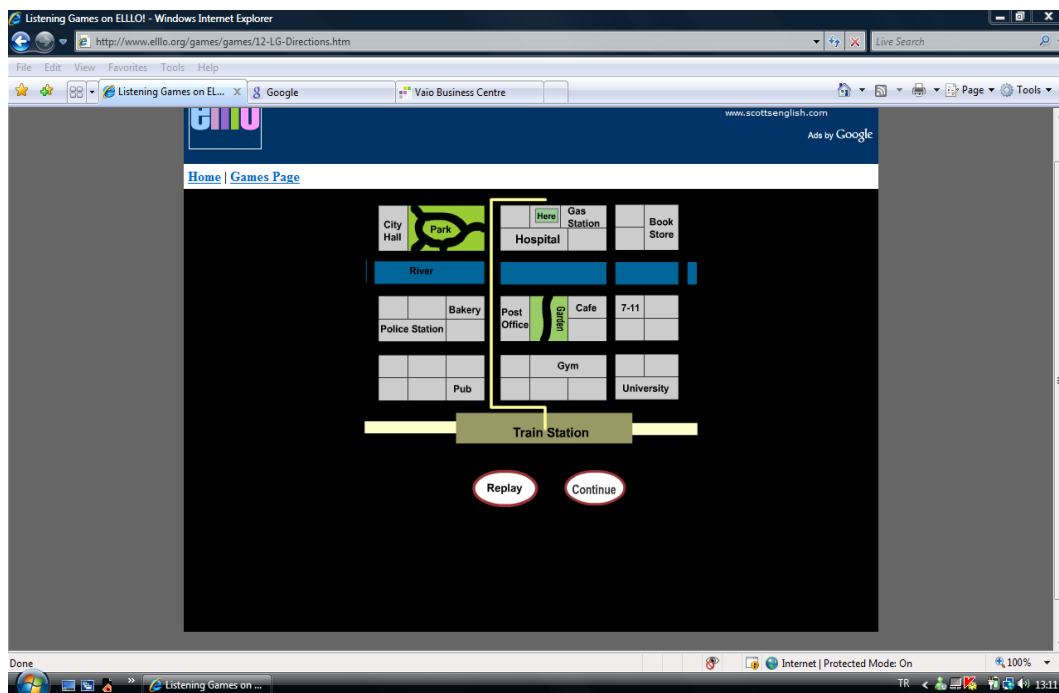
Situation: You are a student in London and you have been living there for 2 years. You like England and whenever you have time you visit different cities in England. Now, you are at the train station waiting in the queue to get a ticket to Manchester for next week. However, you suddenly realize that you do not have enough money to get the ticket. You leave the queue and sit on the nearest bank and start to think what you can do. All of a sudden, you see a wallet dropped near the bank you are sitting. You cannot believe your eyes as it is full of money; however, you believe that it is wrong to use the money that does not belong to you. When you look in the wallet, you also find to whom the wallet belongs. It is John’s and you also find his address in the wallet. You decide to go his home and give his wallet to him. Please visit <http://www.elllo.org/games/games/12-LG->

[Directions.htm](#) as you will find there the directions to John's house. **Upon completing your journey to John's house, please send us all a voice mail through yackpack telling us what you have done with the wallet.**

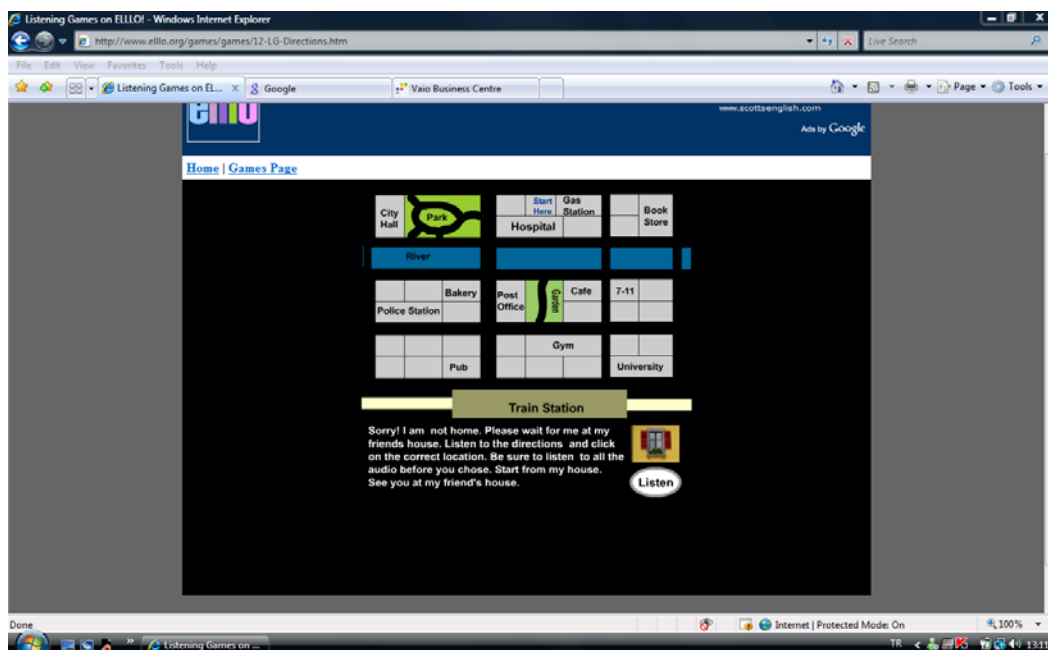
John gives the directions to his house.



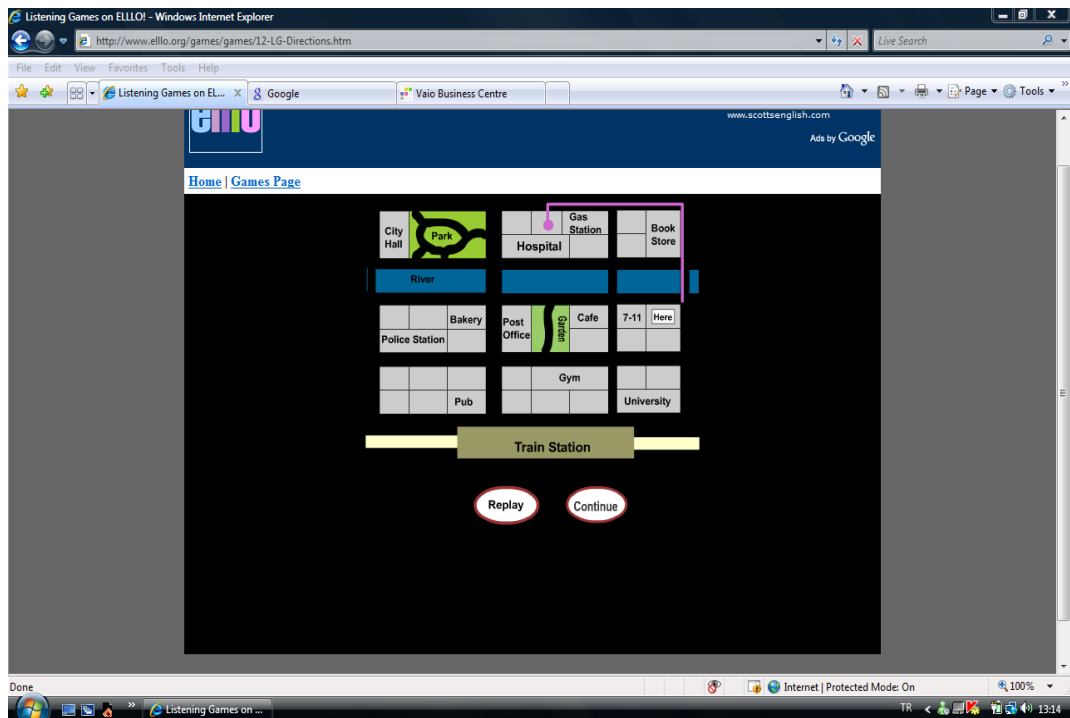
You are given the answer of the right direction to John's house.



John is not at home and he asks you to go to his friend's house and gives the directions.



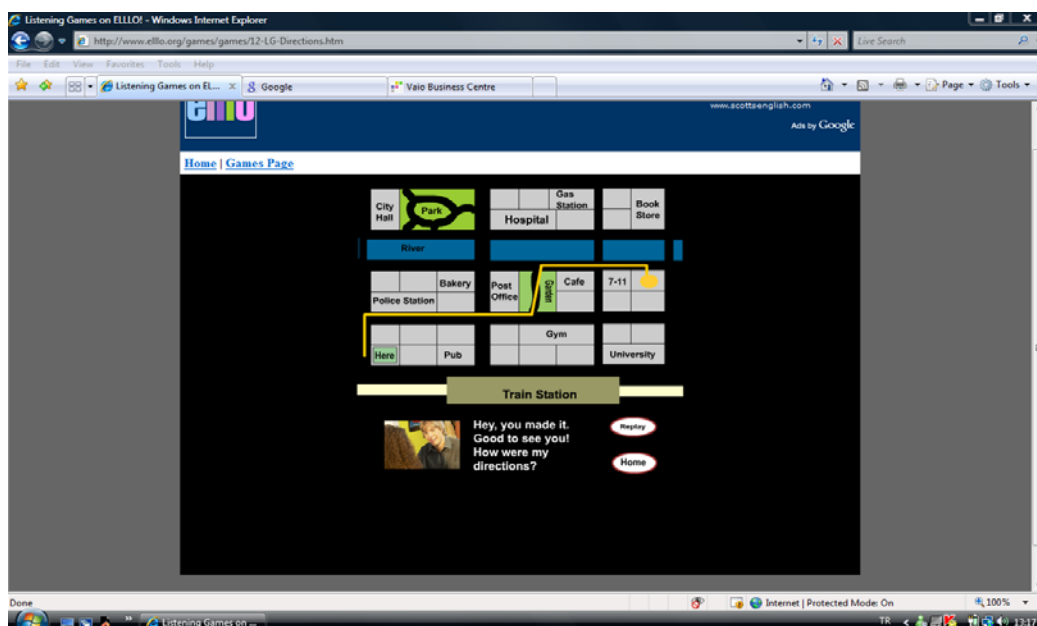
You are given the right direction to John's friend's house.



John's friend is not at home and he asks you to go to Mickey's Tavern and gives you the directions to that place.



Then you are given the right directions to Mickey's Tavern.



APPENDIX 5

DISCUSSION FORUM

ARZU MUTLU • Index page - Windows Internet Explorer

http://www.arzumutlu.ifastnet.com/

ARZU MUTLU • Index p... X Kişiselleştirilmiş Başlangıç ... Vaio Business Centre

MUTLU :) ARZU MUTLU FORUM

Search... Search Advanced search

Board index

FAQ Register Login

It is currently 16 Jan 2008 00:01

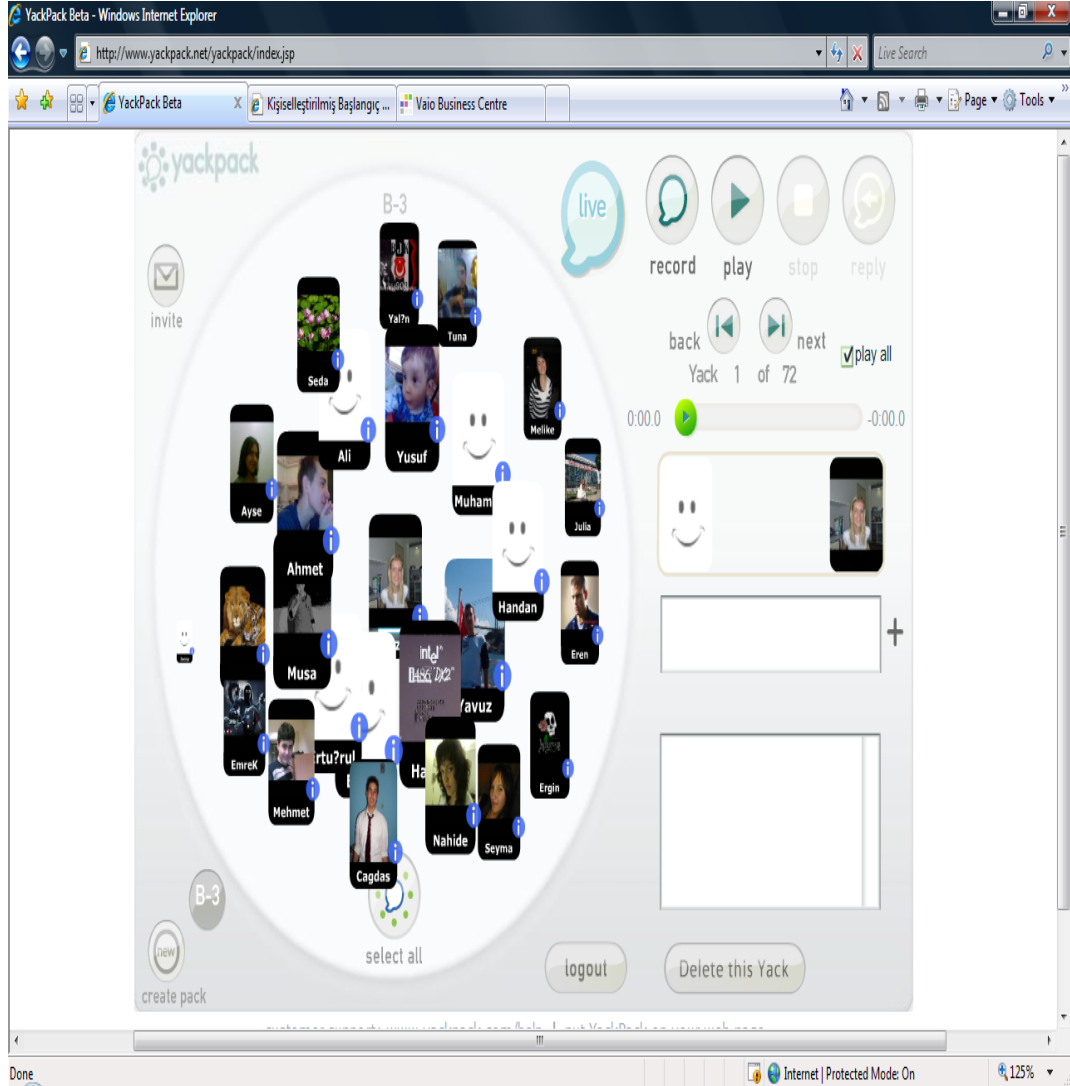
View unanswered posts • View active topics

FORUM	TOPICS	POSTS	LAST POST
Discussion Group	3	58	by admin on 15 Nov 2007 07:33
Technology: Computers and Internet	26	104	by aligeregim on 01 Nov 2007 10:06
Week 1: Top Notch	24	97	by hasanyetik on 06 Nov 2007 14:43
Week 1: NorthStar	24	73	by Arzu Mutlu on 03 Nov 2007 13:37
Week 2: NorthStar	23	53	by hasanyetik on 07 Nov 2007 14:22
Week 2: Top Notch	22	43	by hasanyetik on 07 Nov 2007 14:39
Week 1: English Learning Diary	23	46	by Yusuf on 07 Nov 2007 00:06
HALLOWEEN Please put the information that you gathered from Julia about Halloween. First, write the question and then the answer...	7	9	by emrgerin on 23 Nov 2007 19:44
YOUR STORIES Put the stories that you create...	29	54	by burak on 18 Nov 2007 19:32
HAPPY FEET Please send your opinion about the movie, 'Happy Feet'.	18	18	by TUNAHAN ALTUNDAŞ on 08 Nov 2007 00:39

Internet | Protected Mode: On 100%

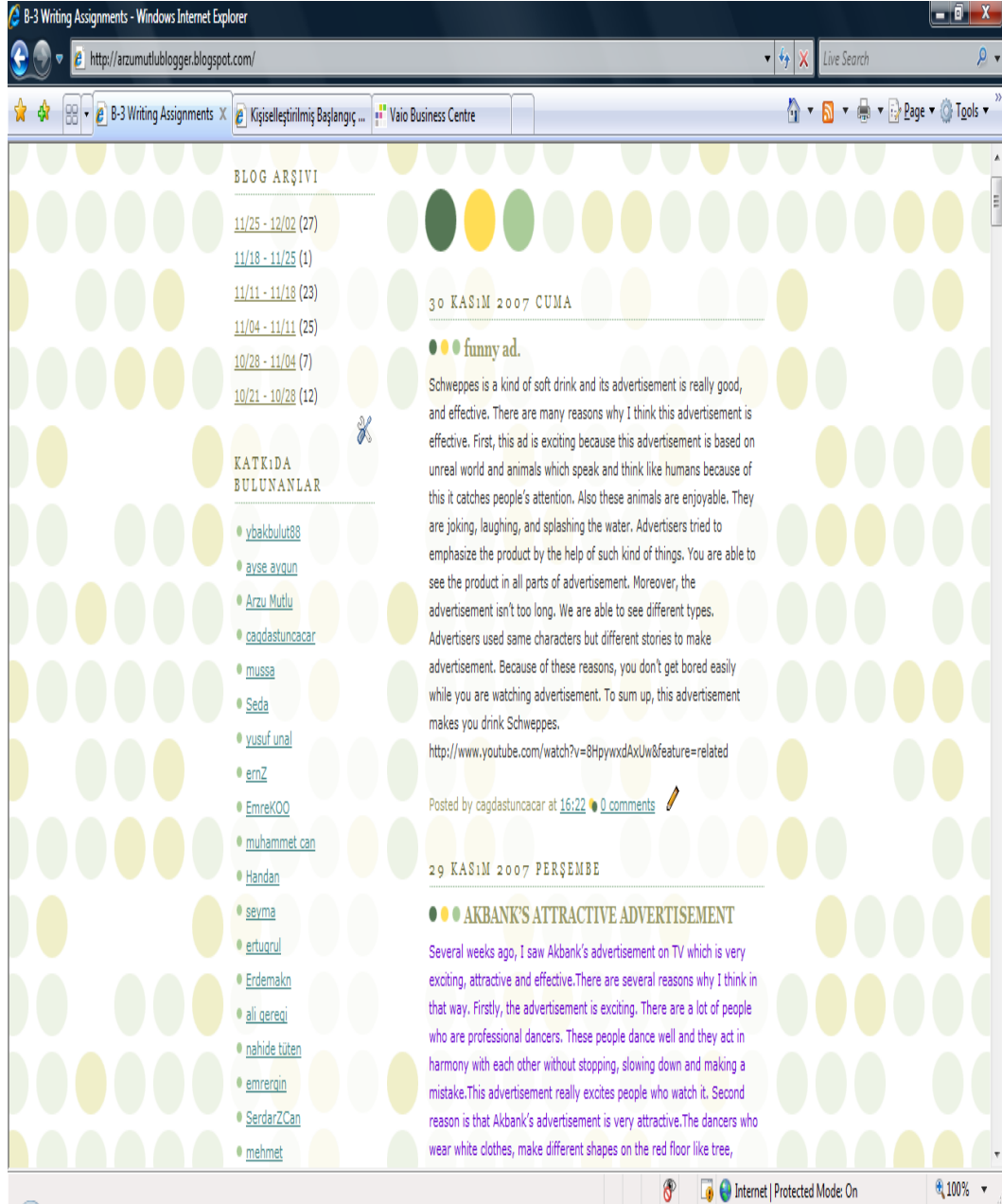
APPENDIX 6

ONLINE SPAEKING CLASS



APPENDIX 7

WRITING BLOG



APPENDIX 8

YAHOO GROUPS PAGE

