We certify that we have read the thesis submitted by Nüket Gündüz titled "The Use of the Moodle System in EFL Classrooms: Perceptions of Students and Teachers in TMK" and that in our combined opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts.

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# DECLARATION

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all materials and results that are not original to this study.

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#### ACKNOWLEDGMENT

This study has been accomplished as part of the MA Program of the English Language Teaching Department, Faculty of Education in Near East University. I would like to thank all academic personnel and special people who have contributed to my study.

First, I would like to express my deepest gratitude to my supervisor Dr.ÇiseÇavuşoğlu for her guidance, motivation and academic contributions. Without her supervision and persistent help this study would not have been possible.

I also want to thank Chief of English Language Teaching Department Assist. Prof. Dr. Mustafa Kurt, for his contributions not only during this study, but throughout my academic life.

I wish to express my appreciation to the headmaster of Turk Maarif Koleji, Mr. Fehmi Tokay, the Counselling Department, and the English Language Department teachers for their participation and valuable help.

My special thanks go to my dearest friend and colleague Deniz Özcan, for her encouragement, help and support during all stages of this thesis.

Finally, I want to dedicate this study to my dear husband Mustafa, my daughter Mine and my son Mete and thank for their tolerance, love and understanding they showed to me during my academic years.

#### Nüket Gündüz

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#### ABSTRACT

# THE USE OF THE MOODLE SYSTEM IN EFL CLASSROOMS: PERCEPTIONS OF STUDENTS AND TEACHERS IN TMK

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February, 2012

This study aims to examine the students' perceptions and teachers' views on using the Moodle system in English language lessons in Turk Maarif Koleji, North Cyprus.

The mixed methods approach was used in this study with qualitative and quantitative data collection tools. Quantitative data was collected from 333 students in Turk Maarif Koleji (TMK) using a researcher made survey adopted from *"Learning Management Systems Coherence with Technology"* survey. The survey consisted of 23 items, and qualitative data was collected by using five discussion questions. Frequency counts, percentages, mean, standard deviation, t-test, and one-way ANOVA calculations were conducted to analyze the quantitative data. Also 12 English language teachers who were serving in TMK at the time of the study were included in a focus group discussion to get their opinions about the Moodle system. Thus, qualitative data was collected from 12 English teachers' opinions about different aspects of the system and its uses. Open code content analysis was used to analyze the qualitative data.

Results of this study showed that students in general perceive themselves as competent users of the Moodle system. However, the study revealed differences between students' Moodle system perceptions according to their gender, age, grade levels and system access. In addition, teachers in general, thought that the system was contemporary and beneficial in the long run but at the time of the study it was not functioning well.

*Keywords: Moodle, blended learning, learning management systems.* 

# İNGİLİZCE SINIFLARINDA MOODLE KULLANIMI: TMK' DAKİ ÖĞRENCİ VE ÖĞRETMENLERİNİN ALGILARI

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Tez Danışmanı: Dr. Çise Çavuşoğlu Şubat, 2012

. Bu araştırmada, Kuzey Kıbrıs Türk Cumhuriyeti Eğitim ve KültürBakanlığı'na bağlı, Türk Maarif Koleji'nde okuyan öğrencilerin İngilizce derslerinde Moodle sisteminin kullanımına yönelik algılarının ve İngilizce öğretmenlerinin görüşlerinin değerlendirilmesi amaçlanmıştır.

Nitel ve nicel araştırma modellerinin birlikte kullanıldığı bu çalışmada, Kuzey Kıbrıs Türk Maarif Koleji ortaokul ve lise bölümünde öğrenim gören 333 öğrenci çalışmanın nicel modelini gerçekleştirebilmek için bu çalışmaya dahil edilmiştir. Ayrıca araştırmanın nitel bölümünü oluşturmak için ise yine Türk Maarif Koleji' inde görev yapan 12 İngilizce öğretmeni, Moodle sistemi hakkındaki görüşleri yüz yüze tartışma ortamında alınmak üzere çalışma grubuna dahil edilmiştir.

Araştırmada elde edilen nicel veriler, 23 maddeden oluşan "Öğrenim Yönetim Sistemi Açısından Amaç Teknoloji Uyumu" anketi ve nitel veriler ise araştırmacı tarafından geliştirilen beş tartışma sorusu kullanılarak toplanmıştır. Araştırmada, nicel verilerin çözümlenmesinde frekans, yüzdelik aritmetik ortalama, standart sapma, t-testi ve tek yönlü varians analizi (ANOVA) kullanılırken, nitel verilerin çözümlenmesinde açık kodlu içerik analizi kullanılmıştır.

Araştırmada, öğrencilerin Moodle sistemi konusunda kendilerini genel olarak yeterli algıladıkları sonucuna ulaşılmıştır. Ancak öğrencilerin demografik özelliklerine bakıldığında, öğrencilerin cinsiyetlerine, yaşlarına, sınıflarına ve sistem erişimi durumlarına göre Moodle sisteminin kullanımı üzerindeki algılarında farklılıklar bulunmuştur. Ayrıca, öğretmenler genel olarak Moodle sisteminin çağdaş ve uzun vadede yararlı olduğu görüşündeyken, çalışma anında çok iyi işlemediği de bildirilen görüşler arasındadır.

Anahtar kelimeler: Moodle, karma eğitim, öğretim yönetimler isistemi.

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# **ABBREVIATIONS**

ANOVA	:	Analysis of Variance
CLT	:	Communicative Language Teaching
CMS	:	Course Management Systems
EFL	:	English as a foreign language
ESL	:	English as a second language
GCSE	:	International General Certificate of Secondary Education
GNU	:	Gnu's Not Unix
IELTS	:	International English Language Testing System
LMS	:	Learning Management System
MOODLE	:	Modular Object Oriented Dynamic Learning Environment
SPSS	:	Statistical Package for the Social Sciences
ТМК	:	Turk Maarif Koleji
UCD	:	University College of Dublin
VLE	:	Virtual Learning Environment

#### **CHAPTER 1**

#### **INTRODUCTION**

## **1.0 Presentation**

Latest developments in the world have made traditional notions of education outdated and have given way to new, more innovative trends in teaching. These trends have been designed to meet student expectations and also to back up evolving pedagogical approaches. Thus more learner-centred approaches were sought in teaching any subject, including languages. Approaches such as Blended Learning, which is an approach that can combine face-to-face teaching with e-learning programs like Moodle, have emerged to facilitate student-centred learning. This has in turn led to face-to-face classroom teaching to be supplemented by technologically driven educational environments, which is more learner-centred, more collaborative and more innovative.

Language courses which combine face-to-face classroom teaching with the appropriate use of technology are a way to practice the blended learning approach. Sharma and Barret (2007) argue that implementation of such technologies and their practices needs to be planned in a way that they can serve as an integral part of the teaching and learning process not in isolation from the rest of the learning. Therefore, for the sake of integration, pre and post implementation stages of such systems are in need to consider the challenges and the opportunities language teachers and learners are likely to face. This study focuses on the students' perceptions and teachers' opinions on the Moodle system which was implemented as a supplement to face-to-face teaching to practise the blended learning approach in Turk Maarif Koleji in North Cyprus.

This chapter of the thesis will give detailed information on the background of the study, followed by the research questions, the aim of the study, the significance of the study and an overview of the upcoming chapters.

#### 1.1 Background of the study

Latest technologies, especially the internet, have given chance to teachers to use many interesting tools to improve the quality of the teaching-learning process. Usefulness of these tools makes it important for teachers to have more information about the advantages and possibilities of using technology in the classroom (Kaminski, 2005). Many studies have been conducted on this issue and some studies such as Coffin and MacIntyre as well as Tsai's revealed that learners' attitudes towards the internet may be influential in their engagement in internet-based learning tasks (Coffin & MacIntyre, 1990; Tsai, 2004). New technologies advancing each day have attracted education societies in using these tools for knowledge acquisition. There are various learning management systems (LMS) available in the market and Modular Object Oriented Dynamic Learning Environment-Moodle is a free and open source e-learning software platform. Hence, in the relevant literature some studies refer to this system as Course Management System-CMS, or Virtual Learning Environment-VLE. However, Moodle will be referred to as LMS in this present study. These e- learning tools allow students to continue learning outside the school environment. Hence, a teacher is still necessary to facilitate the planning and preparation processes. Moodle is one of the preferred types as a method of learning based on electronic media which is designed using sound pedagogical principles, helping educators create effective online learning communities.

Moodle helps educators to blend traditional classroom pedagogies with various web-based technologies in a single application (Lamb, 2004). Moodle is acknowledged as self-directed, out of class practice which fosters learner autonomy. As indicated by Lamb (2004), learners generally welcome internet applications as they can learn at their own pace. Moreover, Moodle environment aims to enhance students' experience in learning and is designed with a constructivist pedagogical framework (Moodle Docs, 2006). Transmission of information from teacher to students is no longer credited. Instead of this passive receptacle, theory of constructivism suggests that the individual finds ways of judgement in terms of "what to believe or do" (Ennis, 1987, p.10). Above all mentioned factors, the major factor that has a role for Moodle to be preferred as a way of learning is that teachers can easily access this software by the program's web page and design a page for their own course free of charge. Furthermore, a password provides future entry for teachers along with the ability to make administrative changes. On the other hand, students also can access to complete and participate in different computer-based tasks like posted assignments, online quizzes and asynchronous chats.

## 1.2 Problem of the study

Leaders of tomorrow are the students of today, considering the changes and demands of this age, there is a need to change and re-structure the educational environments to fulfil the requirements of future leaders. New technologies in the classrooms are a way for teachers to alter and change ways of instructing to meet the ever-changing needs of their students. Utilization of softwares, online resources or learning websites are a way to empower students to become self autonomous. This way student is saved from mindless memorization of the past traditional teaching. This is supported by some researchers as "the traditional learning environment is not able to effectively foster skills on self-regulated learning strategies" (Brooks, Nolan, & Gallagher, 2001. p.108). Moreover, some studies also argue that development of the online education is perceived to be a feasible alternative to traditional classroom instruction (Tallent-Runnel et al, 2006). A mini survey in February 2010 was conducted by the researcher in TMK about the application of the Moodle system. The purpose of the study was to explore the relevance of the Moodle system for student-centred learning and also to discuss the students' opinions about their and their teachers' role in the system. The results of this survey indicated that the system was quite helpful for shifting from passive learning to student-centred learning. In addition, students also showed positive attitude towards using Moodle along with face-to-face learning in their lessons. However, according to students' responses, the results of the former mini survey (2010) indicated that teachers were in need to consider their working styles with the system along with their technological skills. Moreover, in April 2011 TMK school authorities have also conducted a research on using Moodle and this survey also revealed positive remarks of the students' towards the Moodle system. This survey was conducted by the school authority and analyzed by the counselling department the survey was presented by bar charts with given percentages. The striking point was that a narrative report was not organized for the results as it would be expected from a formal research. Therefore, the researcher sought to explore and discuss more in depth about the perceptions of the students on the implementation of the Moodle system in English language classes. Moreover, neither the former mini survey (2010) nor the TMK's survey (2011) included teachers in their studies and the results of both surveys indicated the need to include teachers' opinions in the study.

#### **1.3 Aim of the Study**

The aim of the study was to examine the students' perception and teachers' opinions on using Moodle system in TMK in English language lessons.

The following questions were asked to examine and explore students' and EFL teachers' perception on using Moodle in their English classes.

- 1- How is the general perception of the students' toward the Moodle system in EFL classes?
- 2- Are there any differences between perception of the students' toward the Moodle system in EFL classes according to their: Age, gender, year of study and system access?
- 3- What are the teachers' opinions about using Moodle in English language lessons?

#### 1.4 Significance of the Study

The development and implementation of the latest technology in education enables innovative, student-centred teaching which enhances collaborative learning, problem solving and construction fknowledge. The tools and plug-ins available to the educators use as a course management system (CMS) opens the way for innovation. As Kirkwood (2006) argued:

Low participation rates in the first generation e-learning sites indicate: if you build it, they may not come. Cede control, however, and let them do the building, and – as some of the most popular websites today indicate – they will not only come, they may build a Babel that is both architecturally and pedagogically innovative. (p. 129) This study will evaluate the Moodle system that was implemented in TMK to provide in-depth information for its use in EFL classes. The system will also be explored to pave the way for other schools and education communities that might integrate such systems into their educational processes. The primary objective of this study was to examine, find and convey information that might assist secondary school English language teachers on using Moodle in their English classes. The fact that TMK has conducted an inner survey about the system in April 2011, but it was not as comprehensive as this study and it also ignored the teachers' perspectives. Therefore, this study will provide an academic perspective on using Moodle in T.RN.C secondary schools.

Although the study was based on a specific secondary school in T.R.N.C. it is hoped that the findings may help any school or education community while designing and implementing Moodle into their English language courses. The current study explored and discussed the implementation and integration of such systems into EFL classes with relevant literature which hopes to give insights to other schools while planning and structuring such systems.

## **1.5 Limitations**

The study was limited to one secondary high school because there is only one school in North Cyprus that implements the Moodle system as a way to practise blended learning approach. Thus the findings can only be generalised to the population of that secondary high school.

#### **1.6 Operational List**

In this thesis Blended Learning is accepted as an approach which combines traditional face-to-face classroom teaching with options of learning opportunities created online. Discussed by Oliver and Trigwell (2005) as: "The integrated combination of traditional learning with web based on-line approaches" (p.17). Student-centred learning is defined as an approach that focuses on students' abilities, needs, learning styles and interests in the educational process, where the teacher acts as a facilitator. Likewise, Burnard (1999), interpreted student-centred learning as "students might not only choose what to study, but how and why that topic might be interesting to study" (p.244). Collaborative Learning is used to refer to methodologies and environments where learners are assigned to work on a common task. More specifically it includes face-to-face conversations, sharing materials of a and online discussions like forums and chat rooms for their assigned task engagement to create artefact or a product for their learning like group projects, joint problem solving as well as study teams. Learning Management System indicates a software application for classroom and online teaching/learning process. It is a system that provides assembling and delivering learning materials, personalizing content and enabling knowledge reuse, it is also portable and strengthens the autonomy of the learners. According to Szabo and Flesher (2002), LMS is defined as the infrastructure for managing and delivering instructional content according to individual learning or training goals which also tracks the progress and collects data to supervise the learning process.

#### 1.7 Overview of the Thesis

In the following chapters of the thesis the related literature review will be presented. In this literature chapter, the definitions of instructional technologies, student-centred learning, e-learning, blended learning, learning management systems and Moodle will be presented and discussed in relation to relevant literature.

Chapter III will describe the study process. It will give detailed information about participants of the study, explaining research design, the materials used for collecting the data, followed by data analysis procedures. Then, Chapter IV will focus on the findings of the data analysis and discussion of these findings. The interpretation of the significant differences found by the data analysis will also be included. The final chapter will present an overview of the results and will provide recommendations for further research.

#### **CHAPTER II**

#### LITERATURE REVIEW

#### 2.0 Presentation

New learning approaches are aiming to enhance and extend learning opportunities for our twenty-first century learners. This chapter will focus on some of the approaches and the ways these approaches and technological developments can blend in to enhance learners' existing knowledge as well as helping them produce knowledge. Instructional technologies, student-centred learning, e-learning, blended learning, learning management systems and finally the Moodle will be presented and discussed in this chapter.

The rapid change and developments of the technologies have provided new possibilities of designing different kind of courses for language teaching and learning. Web based courses are one of these designs where they can stand alone for teaching/learning or be combined into the current education process. With these changes and the influence of the psychologists, traditional curriculum approaches left their place to hands-on and group work activities which introduced the term "student-centred learning" into education. Moreover, when the computers entered into the education environments e-learning came into the scene, offering educational web sites for learning scenarios, worksheets, interactive exercises and many other tools for the learners. This trend was and still is approved for giving advantage to learners to learn at their own pace as well as shifting power from teacher to student for acquiring knowledge, an opportunity that a classroom may not always offer (Barr &Tagg, 1995). Furthermore, e-learning is also observed to be used in conjunction with face-to-face teaching where it enables the blended learning approach to be

applied into teaching/learning process. Blended learning combines different learning environments like traditional classroom methods to appropriate use of technology like computer-mediated activities, or web based courses (Barret& Sharma, 2007). Applying blended learning into the education process is possible with a Learning Management System (LMS). LMS not only functions as managing training and educational record but also serves as software for distributing courses over the internet for online studies. According to Balki (2010), this system is known for centralizing and automating administration, assembling and delivering learning content, consolidating training initiatives on a scalable web-based platform and personalizing content and enabling knowledge reuse. Although some LMSs are webbased and commercially developed and need software licence there are also opensource types as well. Modular Object Oriented Dynamic Learning Environment (Moodle), is one of the preferred and implemented open source type LMSs that is used in educational environments for creating interactive, innovative and studentcentred learning procedure either on its own or as a supplement to traditional face-toface classroom environments.

#### 2.1 Instructional Technology

Twenty-first century students are technology driven and also demand proven facts for what they are engaged in. Therefore, today's learners no longer consider language learning to be boring as they are aware that language learning can be fun and enjoyable but not with continuous practise for memorization and learning from rote as applied in traditional teaching methods.

The main aim of language use in this century is communication and connecting with people around the world which has transcended the geographical and physical boundaries with the help of technology. Teachers' skill of integrating technology into their pedagogy is still a big discussion as Mishra and Koehler (2006), argue on teachers' substantial knowledge needed for integrating technology into teaching. According to these researchers the three main components of learning environments, content, pedagogy, and technology are important issues for utilizing technology in the classroom. Some education environments have claimed to give up traditional teacher-centred approach and adopted student-centred learning as an alternative approach by utilizing the available technologies in the classrooms. However, the reality and the targeted approach seems not to blend well in some cases as Lea et al.(2003) argue, "many institutions or educators claim to be putting studentcentred learning into practice, but in reality they are not" (p. 322). Hence, replacement of the traditional chalk and board with the available technical equipments needs planning especially in relation to course design and the kind of objectives to consider like focusing on what the student will be able to do, instead of what kind of content will be covered (University College Dublin (UCD) Centre for Teaching and Learning, 2005). Thus, relevant to the literature discussed in this part of the study, the enhancements of technologies are still in discussion among the education authorities.

Interestingly, youth of this digital age are aware that they are more advanced on technology concepts and skills and even become the authority when adults request for their help and coaching on issues related to technology. Likewise, using instructional technologies in English language teaching has also experienced an increment for the past ten years and definitions of instructional technologies have changed constantly over the years as well as the perspectives. With the development of advanced techniques the use of the internet and computer technologies in terms of designing web courses has provided new possibilities in language teaching and learning. The e-learning system offers course materials in different formats (text, image, sound, etc.), and also enables students to interact with their peers and teachers individually and simultaneously via message boards, forums, chat rooms and video conferencing. Students can also learn at their own pace, and shape the learning process to suit their needs (Tromblev& Lee, 2002; Zhang & Zhou, 2003). In the language teaching environment, practitioners have indicated that functions and features of CMSs like the Moodle create an interactive and community-based virtual learning environment that supplements traditional classroom-based language instruction (Brandl, 2005; Chen, Belkada& Okamoto, 2004; Priyanto, 2009; Rob, 2004). Moodle, which is a free and open source e-learning software platform, was created with the idea that learning takes place among a group of people constructing things for one another, creating, working collaboratively and sharing artefacts and meanings. Many studies have been conducted and are still continuing in this field. In one of these studies Cole and Foster (2005) indicated that more than thirty thousand educational organizations around the world are using Mooodle to deliver online courses and also to supplement traditional face-to-face courses. Moreover, the wide use of these online technologies has also been analyzed at faculty level. To illustrate, San Francisco State University (SFSU), is a higher education institution in the United States, where 70% of all courses use online technologies (Beatty &Ulasewicz, 2006). However, Dehoney and Reeves (1999) argued that the use of the internet in traditional ways is more of a predisposition than it appears. Therefore, it is important to take into account that internet should not be used to deliver electronic versions of a traditional course as indicated by some authors (Hong, Lai & Holton, 2003). Awareness on this issue is important in considering technology to be embedded in the teaching and learning process where in some cases it fails to reflect on practice of important learning strategies of targeted process like self-regulated learning, collaborative learning, problem-solving and critical thinking. Authors also argue that ineffective use of the internet is due to poor regulation on the use of computers and the internet in the teaching and learning processes where the teacher dominates the classroom and the students absorb passively. Moving from these circumstances it is crucial that more structure and regulation be provided for web-based learning environments (Hong et al, 2003).

#### 2.2 Student centred learning

Student-centred learning has been valued since 1905 with Hayward, and continued to 1956 with Dewey's work (O'Sullivan, 2004). In the theories of education, this approach is associated with Carl Rogers's client-centred counselling (Burnard, 1999; Rugoff, 1999). The work of Piaget and recently Malcolm Knowles are also associated with student-centred learning (Burnard, 1999). The term student-centred learning is interpreted as active learning, choice in learning and shift of power in the teacher-student relationship from teacher to the student. Moreover, the need to shift power from expert teacher to student learner is explained as students being passive, bored and de-motivated in the traditional education environment (Rogers, 1983). According to new trends in education, changing from teaching to learning enabled power to be moved from teacher to student (Barr &Tagg, 1995).

In student-centred language teaching, teachers need to identify learners need according to goals and contexts of language learning. It is also important for teachers to consider learners background, interests, experiences, beliefs, styles and also to be flexible while teaching. Furthermore, in terms of constructivist notions teachers' duty is to facilitate learners to make connections among language content and the experience. In other words, learners should participate and communicate actively in meaningful interaction (Ellis, 1985). Another important aspect of this type of learning is the involvement of teachers and the learners in parallel processes in all aspects of the ongoing learning by enquiring and reflecting on the practice. These features of the student-centred learning seems to appeal more to today's society where choice and democracy are highly valued concepts. Edwards (2001), emphasizes the value of student-centred learning as

Placing learners at the heart of the learning process and meeting their needs, is taken to a progressive step in which learner-centred approaches mean that persons are able to learn what is relevant for them in ways that are appropriate. Waste in human and educational resources is reduced as it suggested learners no longer have to learn what they already know or can do, nor what they are not interested in. (p. 37)

Lea et al. (2003) defined student-centred learning as:

- the reliance on active rather than passive learning,
- an emphasis on deep learning and understanding,

• increased responsibility and accountability on the part of the student,

- an increased sense of autonomy in the learner,
- an interdependence between teacher and learner,
- mutual respect within the learner teacher relationship,

• and a reflexive approach to the teaching and learning process on the part of both teacher and learner. (p.322) Furthermore, Brandes and Ginnis (1986), presented the main principles of student-centred learning as taking responsibility, involvement, teacher acting as a facilitator and a resource person, growth and development among the learners, affective and cognitive domains flowing together and the learners'perceiving themselves differently as a result of the learning experience. As discussed in the current study many arguments have been circulating in the academic world on how to adopt and practice student centred-learning approach in order to be effective and function well for the benefit of the learner. According to Kern and Warschauer (2000), internet technologies are a way to benefit in terms of communication that can serve to reflect on the form and content of the communication. With the development of the internet technology, growing interests in integrating e-learning into language classes have emerged from the education authorities in regard to these discussions.

#### 2.3 E-learning

E- Learning is one of the information society products that have been created by the globalization of the knowledge in the digital age. According to Rosenberg (2001), e-learning is highly promoted in the education society and is accepted to support teaching and learning environment. Online training, online courses, virtual learning, telelearning are the terms used for the definition of e-learning. E- Learning platforms provide a variety of object implementation like, links to other web sites, visual images, oral and written text documents, videos and animation. These implementations especially help the student to acquire difficult concepts. The common term for e-learning is virtual learning environment (VLE), where interactive classroom platforms like Moodle are implemented to provide wide range of online resources to enhance education outcomes. Researchers report many advantages of using VLE in language learning, like increasing motivation, lowering anxiety and providing interactive learning environments (Robb, 2004). VLEs in foreign language teaching/learning procedure are used under the name of Computer Assisted Language Learning (CALL). This approach has been expanding since 1990s, after the personal computers replaced the language and computer labs and utilized as significant tools for language teaching and learning (Hanson-Smith, 2001).

Information and communication technologies (ICT) have been developed so much that they are accepted to be "the core of education, with reading, writing and numeracy" (Khvilon & Patru, 2004. p. 9). These programs support the learners with cultural background in the language learning tasks which make classroom learning "more real" (Khvilon & Patru, 2004: 86). Although, the general conception of elearning is perceived as virtual learning, e-learning can be combined with face-toface learning and practice as blended learning.

#### 2.4 Blended Learning

Using both traditional face-to-face interaction and implementing latest technology into education environment is referred to as blended learning. Kerres (2002) and Reinman-Rothmeier's (2003) study (as cited in Kupetz & Ziegenmeyer, 2005) define blended learning as purposeful design of media, methods and ways of organizing learning environments by combining traditional media and methods with e-learning elements and possibilities. Moreover, blended learning supports and adds value to the teaching environment, Kerres (2001), study (as cited in Kupetz & Ziegenmeyer, 2005) emphasizes that blended learning can support individual construction, integrate knowledge and offer access to manageable information, as well as taking into account students' prerequisites and needs. There is a need for

learners to be exposed to a variety of learning activities which can be arranged by combining cognitive and social constructivist as well as instructional approaches in a purposeful way to facilitate the learning style of the individual learner (Felix, 2004).

Blended learning can maximize the benefits of both face-to-face and online methods (Osguthorpe & Graham, 2003). Hence, blended instruction as discussed by many researchers combines online and face-to-face activities in order to offer a more effective education (Means et al, 2009). According to Dziuban, Hartman, and Moskal (2004), blended learning includes the following charesteristics, where instruction is redesigned to include:

(1) a shift from teacher-centred to student-centred instruction in which students become active and interactive learners; (2) increased studentinstructor, student-student, student-content and student-outside resources interactions; and (3) integrated formative and summative assessment mechanisms for students and instructors. (p.3)

## 2.5 ComputerAssisted Language Learning (CALL)

Considering the new approaches that gradually developed to provide the needs of the new century in education, the updating of educational institutions came to be a must. In the late 1990s, Chapelle (1997) pointed out that there is a need for developing an educational model that can serve with pedagogical merits of the new educational medium. The main issue that Chapelle was interested in was methods of other L2 learning topics and found CALL to be valuable enough to explore. As input is an important factor in acquiring a language, Chapelle (1997), considered the relevant questions to ask when evaluating CALL: "(a) Does Call create conditions for ideal input and interactions?, (b) What kind of language do learners engage in

when they complete Call tasks?, (c) How good is the CALL language learning experience? (p.21).

With regard to Chapelle's argument, creation of activities to improve the target language acquisition through effective participation, authentic and comprehensible interactions lies in the responsibility of the designers and the educators.

Moving from the responsibility of educators, the importance of selfconfidence and the intension to use the system is an issue to take into account. The study of Meskill, Mossop and DiAngelo (2002), discussed that among many reasons for the effective use of educational technology were perceptions of the system as a means rather than ends to learning. The researchers also pointed out that those teachers who found the system difficult to utilize often gave low priority compared to other classroom routines which lead to non-reflective appropriation and added the burden to teachers leading to little utility. Regarding the educators who deposit positive perceptions towards such systems like Moodle they are always prepared to solve problems if technology fails and focus on technology as another way to support the learning process more than the others who do not. Learning Management Systems are one of the systems that allow CALL to be practised in language classes.

#### 2.6 Learning Management System

The use of Learning Management System (LMS) has been favoured for the past decade and many teachers are using LMS, several of which are open source like Moodle. Technology advancements and young generations' positive attitudes towards the new applications have influenced the education communities to implement these systems into their education environments. LMS, which is a software application that helps the user to plan, deliver, publish and place online courses that enable learners to learn on their own pace. Learners can easily log into the LMS with a browser to select a course from the online catalogue and start online studying. Moreover, LMS is learner-centric and focuses on e-learning process management and delivery of the content.

There are many advantages of LMS. First it is user-friendly, and offers feedback possibilities in the form of annotation buttons. Knight (2002), argues that error analysis in writing classes provides "improvement-centred feed-back". Knight carries on discussing that teacher with "peer feedback" leads to "more social learning" which "fits with modern motivation research" (Knight, 2002, p. 11). Moreover, "it is the relationships and interactions among people through which knowledge is primarily generated" (Palloff & Pratt, 1999, p. 15). Thus, "rules of the game have to be clear" (Knight, 2002, p. 13), referring to the course and the system integration and the clarity at its outset. The system implementation, development and integration are important issues to consider for the sake of providing substantial knowledge in order to serve to the specific education environment. According to Heinze and Procter (2004), if blended learning stands for "the effective combination of different modes of delivery, models of teaching and styles of learning and [is] founded on transparent communication amongst all parties involved with a course" (p. 9), then learning management systems are a way to blend into traditional teaching settings. The main question to be answered in such implementations is whether the online component of the course is well explained and integrated into the whole education process, relevant to Knight's (2002) argument on the 'rules of the game'. In addition, it is not possible to pre-determine the learning process of the students and structure activities accordingly. Hence with the help of LMSs self-governed and problem solving activities have been possible to serve individual needs of the learners providing multiple possibilities for activities (Hannafin & Land, 1996). Jonassen's (1999), approach with constractivist learning environment that supports student's problem solving process are relevant in a way that they also provide students with different tools and resources. Koper (2004b), argues that, "Self-organized learning networks provide a base for the establishment of a form of education that goes beyond course and the curriculum centric models, and envisions a learner-centred and learner controlled model of lifelong learning" (p. 1).

Moodle is one of the LMS systems that can be implemented to integrate into the education programs to supplement face-to-face teaching/learning with online options to strengthen the learners' knowledge and skills as discussed in this section.

#### 2.7 Moodle

In the early 1980s a paradigm shift (Kuhn, 1962, p.85) began in the world of software and was argued to be as dramatic as those initiated by Corperncius or Einstein. It all started when a computer programmer, Richard Stallman needed to modify the software to his new printer and realized that the program source codes that enabled him to access previously to that specific program were missing and he could not use his colleague's source code due to nondisclosure agreement. Stallman felt that corporate greed had intruded upon a sacrosanct part of the computer- users' culture (Williams, 2002). Thus he responded by writing the Gnu's Not Unix (GNU) Manifesto1, proclaiming that software should be free of charge, and should give everyone the unrestricted right to learn from it, use it, change and distribute it. Stallman is the founder of Moodle which was developed for the users on the web as an open source without any cost. However, Martin Dougiamas was the person who originally developed Moodle to provide a platform or the educators to create online courses with interactive and collaborative content.

Moodle is the acronym for Modular Object Oriented Dynamic Learning Environment. According to Cole and Foster (2005), there are huge numbers of educational organizations that use Moodle to deliver online courses as well as supplementing face-to-face courses. Moodle is available for free on the web use as <u>http://www.moodle.org</u>.

Moodle is argued to fit within the parameters of Communicative Language Teaching (CLT). Moreover, it is believed that it expands the pedagogy as comprehensible linguistic interaction increasing teacher/student, student/student to student/technology as well (Brandl, 2005). Moodle use can be a feasible way to enhance the computer based communicative tasks within the teachers' instructional setting. Moodle can be considered to serve the in-class as well as out-of-class linguistic collaboration among students, teacher and the technology as a stand-alone instructional tool or as a supplement.

Cole and Foster (2005), explained the Course Management Sytems (CMS) as web applications that run on a server and can be accessed by using a web browser which can be utilized with the application of Moodle system. Moreover, CMS's provide some useful features, such as uploading and sharing materials, announcements, giving quizzes, forms and chats, giving assignments and grades that enable teachers to create course web site with access control. There are also many advantages of using Moodle for teachers and students. Students can access textbook materials, quizzes and other files downloaded by teachers as supplementary learning tools, interact/communicate both with teachers and other students on the web, can use portable learning devices for downloading materials, can compensate for their missed classes and can access web-based media. In addition, teachers can download course, supplementary, and other materials, assign forums, blogs and other interactive activities, obtain students' information by profiles posted to the site, follow and assess students' progress, assign homework, disseminate extra/latest information about the course and post reminders about assignments/exams.

#### 2.7.1 Application of Moodle in TMK

Moodle has a significant international user base; Turk Maarif Koleji which is a high school in North Cyprus has identified the need to extend the learning environment outside the physical location and hours of operation for the long term success of the students and has implemented Moodle system into their education process.TMK's objective with grant from The European Commission for Schools' Initiative for Innovation and Change was to facilitate student-centred learning by setting up the necessary hardware and software to strengthen the current networking infrastructure and train teachers and other staff (F. Tokay, personal communication, September 29, 2011). More specifically, the aim was to develop and deliver innovative, student-centred teaching methodologies. Even though the target group of this project initially was TMK students, teachers, staff and parents it is believed to pave way to other schools in North Cyprus.

#### **2.8** Conclusion

To conclude, it is difficult to separate language and technology in this century, because various technical tools are offering people advantages like time saving and connecting to the world. The learners are using so many technical devices and tools like; computer to write, internet to track down a reference, Skype to interview or discuss on a topic. Researchers Lankshear and Knobel (2003), support this by arguing that the students need the kind of digital literacy skills that help them make effective use of these tools and that language on its own is no longer the object of study.

In this chapter, certain instructional approaches and the use of computer software in teaching/learning have been discussed in relation to the current literature. The literature review suggests that implementation of LMSs like Moodle enhances and strengthens the learners' knowledge acquisition. Furthermore it supports studentcentred learning and also empowers students' to become more innovative in their learning. In the next chapter, the methodology followed in this study to determine the students' attitudes and teachers' perceptions on the use of the Moodle system in TMK will be presented.

#### **CHAPTER III**

#### METHODOLOGY

#### **3.0 Introduction**

This chapter provides detailed information about the research design of the study. It presents information about the participants the materials used to collect data, data collecting procedures and data analysis.

#### **3.1 Research Design**

The present study was undertaken to address students' perceptions and teachers' opinions on Moodle system in English classes in Turk Maarif Koleji (TMK) in North Cyprus where it is currently being used as part of instruction. The study was designed by using mixed methods approach where quantitative data collection tools were used for collecting and analyzing data about students' perceptions and qualitative data collection tools used to collect data about teacher opinions on various aspects of the system.

According to Tashakkori and Teddlie (2003), the mixed method is the "third paradigm" coming after qualitative and quantitative methods. These researchers also argue that this method has a "worldview" of its own where it is distinct from positivist perspective of quantitative and constructivist perspective of qualitative research. Mixed methods approach was used in the present study aiming to provide more comprehensive answers to the research questions by eliminating the limitations of a single approach. In addition, Strauss and Corbin (1990), argue that qualitative and quantitative research can be combined. Moreover, the argumentthat Russek and Weinberg (1993), suggests on using mixed methods in their study that provided insights neither quantitative nor qualitative data could provide alone and also the relevance of their study on "Mixed methods in a study of implementation of technology-based materials in the elementary classroom" encouraged the researcher to use this method (p.140).

Mixed methods approach was used in the study by designing a survey questionnaire (See Apendix A) for collecting quantitative data on students' perceptions of the Moodle system. As for qualitative data it was collected from semistructured discussions of the focus groups of teachers about their opinions of the Moodle system.

## **3.2 Participants**

The participants of the research consisted of 333 secondary and high school students studying in Turk Maarif Koleji. Randomly selected students were categorized in two age groups where 131 (39%) of the students were in the age group of 13-15 (secondary school level) and 202 (61%) were in16-18 (high school level) age group. Year six students were excluded from the survey because the academic year in which the study was carried out was their first experience with the Moodle system. Therefore it was considered as they might not have the necessary knowledge and experience to respond to the items in the questionnaire.

In addition to the student survey, randomly selected 10 English language teachers who were teaching in Turk Maarif Koleji at the time of the study were asked to participate in the focus group discussions. Each group was accompanied by their department chiefs and there were 12 teachers who participated in the discussions. Focus group one consisted of six secondary school teachers and the second group of six teachers teaching in high school sections. The focus groups were balanced with 6 English teachers who were interviewed for the collection of qualitative data of teacher opinions about the Moodle system. Survey discussion questions (See Appendix C) attempted to collect data of responses giving insights about teachers' opinions. Two focus group members consisted of eight female and four male teachers while six of them were teaching in the secondary level and the other six teaching in the high school level. Five teachers were in the age group 25-35, six were in 36-46 and only one in 47-57. Although each teacher had different years of teaching experience they all had been teaching over ten years. Five of the teachers had been teaching between 10 and 14, six teachers between 15 and 19 and one between 22 and 24. Teacher participants were all Turkish Cypriots and English language was not their native language.

#### **3.3 Materials**

For the first part of the study, which consisted of collecting data about the perceptions of students of the Moodle system, a researcher-made questionnaire adapted from "Learning Management Systems Coherence with Technology" (See Appendix A) was used. The questionnaire consisted of two parts. The first part was developed by the researcher to consist of five items for collecting information about students' age, gender, class and problems about accessing to Moodle at home. These variables were included to enable the researcher to carry out statistical analysis based on different demographic information. The second part of the questionnaire contained 23 items, which were grouped under five dimensions for the analysis purpose. These dimensions were (a) self-efficacy (.965), (b) perceived ease of use (.890), (c) attitude (.972), (d) system usage (.911) and (e) personal innovativeness in

the domain of information technology (.832). The items for the five dimensions were measured on a five level Likert scale ranging from 1(strongly disagree) to 5 (strongly agree).

The second part of the questionnaire, where students' perceptions were measured was adapted from similar studies. These studies were Sanches and Hueros (2010) and Raaij and Sheppers (2008). The questionnaire of Sanches and Hueros (2010) were structured with 28 items grouped under six dimensions which were (a) technical support, (b) perceived usefulness, (c) computer self-efficacy, (d) perceived ease of use, (e) attitude, and (f) system usage. The questionnaire of Raaij and Sheppers (2008) consisted of 21 items grouped under six dimensions which were (a) computer anxiety, (b) personal innovativeness in the domain of information technology, (c) perceived ease of use, (d) perceived usefulness, (e) subjective norm, and (f) intensity to use. The questionnaire of this research was re-structured by eliminating the first dimension 'technical support' in Raaij and Sheppers questionnaire because this was not valid for this study. Moreover, items about academic performance, effectiveness, and learning in university were eliminated from the 'perceived usefulness' dimension that resulted not to be relevant in the reliability test. Furthermore, first item of 'perceived ease of use'. (Learning is easy for me) was eliminated and the remaining items of perceived usefulness and perceived ease of used were grouped under (b) perceived ease of use and a new item (item 7) was added (using Moodle increases my creativity). This item was added as creativity was considered to be a factor affecting achievement and also influencing innovation. As Sternberg (1985) argues in his Triavehic theory that creative intelligence (creativity), a non- cognitive element promotes success. The 'Personal innovativeness in the domain of informational technology' dimension was adopted

from Raaij and Sheppers (2008) because it was considered to be important for the use of Moodle system. It was considered that this variable could indicate the participants' openness about experimenting new technologies.

The original questionnaire was developed with seven Likert scale and it was modified to five Likert scale for this specific study. Reduction of the scales was sought to be necessary because the participants of this study were younger than the participants of the two studies that the questionnaire was adopted from.

The adopted questionnaire was structured in English and then translated into Turkish. These questionnaires were translated according to Hancer's (2003) model of the serial approach which consists of six steps. In the first step, the questionnaire was translated by a committee of five lecturers working in the field of English language. Each member translated and edited the questionnaire individually. Then, for the second step, it was given to four different individuals who were between the ages of 13-16 and these people were asked to evaluate the questionnaire for clarity of meaning and ease of understanding. Furthermore, the questionnaire was approved by academics in the English and Turkish language fields. Third, in order to identify and omit the problematic words, the questionnaire was translated back to English, i.e. back translation. Fourth, the rephrased questionnaire was again given to a group of young people (n=30) to carry out the field test. In order to measure the reliability (fifth step), in this part the results indicated that one dimension (perceived usefulness) had to be eliminated as mentioned in the materials part and some items of this dimension combined with another dimension (perceived ease of use) and again, the questionnaire was given to 30 students for the second pilot survey and this time Cronbachalfa score was measured at .950.

Finally the results of the reliability test showed that (see the following section on reliability and validity for further discussion) the questionnaire was reliable for the target participants. Furthermore, the questionnaire was evaluated and edited for the final time before the application. In the end the questionnaire used in this study consisted of 23 items, focusing on different dimensions of students' perceptions.

Qualitative data was also collected from two focus groups formed by English teachers. Five open-ended questions were prepared to be used in semi-structured discussions. These questions were:

- 1. What are the benefits of using Moodle in your English courses?
- 2. In what terms has the Moodle made your students successful?
- 3. What are the needed requirements for a teacher who is using Moodle for teaching English?
- 4. Do you believe that school facilities are adequate for the Moodle system to function?
- 5. What are the attitudes of the students about the implementation of the Moodle system?

As the focus groups were designed to bring out the participants' views to the table additional questions were also directed to clarify responses and gather richer data during the discussions. The two focus groups were recorded and then each was transcribed for analysis. The recordings from the two focus group discussions added up to 90 minutes of audio recordings.

#### 3.4 Reliability and Validity

The scale Reliability Analysis was used to find the reliability of the questionnaire. The analysis was conducted by using Alpha Model. For the reliability and internal consistency, the researcher calculated the Cronbach Alpha score of the questionnaire for each dimension identified earlier. The results were as .965 for first dimension (self-efficacy), .890 for the second dimension (perceived ease of use), .972 for the third dimension (attitude), .911 for the fourth dimension (system usage) and finally.832 for the last dimension (personal innovativeness in the domain of information technology). The questionnaire used for data collection was therefore considered to be reliable. For content validity, the researcher used resources of previous studies about the Moodle system and the implementation of such systems into the education processes.

# **3.5 Procedures**

The first step of data collection was to apply to the Ministry of Education and Culture for permission to carry out the study in Turk Maarif Koleji as it is a state school. Furthermore, approval of the questionnaire by the Ministry allowed the survey to be conducted with the young people in this school. Following this, the headmaster of TMK was visited and informed about the study. The headmaster contacted the counselling department and informed them about the study and appointed the department to be responsible for the necessary help to be provided for the administration of the current study. The researcher briefed the counsellorteachers about the study and handed the questionnaires to them to be administered in each identified classroom. The researcher was also present at their convenience to answer any questions from the students. The questionnaires were distributed and collected in two weeks time. The collected data was entered into the computer on a Statistical Package for Social Sciences 16.0 (SPSS) spreadsheet to be analyzed.

The qualitative data collection was as straightforward as the quantitative data, as the first appointment with the English teachers was not effective in getting their interests in the study. The researcher's brief presentation of the study and request for a date for the first focus group was rather ignored by the teachers who did not seem to be willing to participate. Although the necessary contact details were left for the teachers to inform the researcher about their convenient date and time to conduct the discussion there was no response for two weeks. Thus, a more top-down approach seemed to be more effective to gather teachers for the discussion groups. The headmaster acted as the gate-keeper in getting the necessary teacher groups formed for the discussion to be carried out. He was rather enthusiastic and willing to help, he believed that this study was promising to be beneficial for TMK for future functional usage of the Moodle system. The department chiefs of secondary and high school teachers were called to a meeting with the researcher at the headmaster's presence in his office. This was very effective and the two different dates for two discussions were immediately set and the teacher groups were structured.

The first discussion was realized with the secondary grade teachers. At the beginning of each discussion group, first, the consent letters (See Apendix B) were disseminated and the study was presented once more by the researcher and the volunteering teachers signed the consent letters. The duration of the discussion was forty five minutes and it was recorded. The same procedure was repeated with the second focus group where the volunteers were high school teachers. The recorded data was then transferred to Audacity software programme to be used for transcription. The transferred data was listened to carefully for several times until the

researcher was ready to transcribe the parts that was relevant to the research questions. The transcriptions added up to 20 A4 pages.

The open coding method (Strauss & Corbin, 1990) was used to analyze the qualitative data and emerging themes were recorded by the researcher based on their frequencies of occurrence within the discussion. In addition, certain significant issues that were not originally included in the researcher's perspectives but did emerge during the discussions were also noted as significant issues according to the teachers' perspectives. The results of the analysis showed that the most significant themes for teachers' views on the use of Moodle in TMK were (a) the frequency of use and the reasons, (b) type of use, (c) system structure and (d) general opinions about the system. Further discussion on these themes will be provided in the next chapter.

## 3.6 Data Analysis

The analysis was conducted both quantitatively and qualitatively as the different forms of data collected throughout the study required to do so. The quantitative analysis was conducted by using SPSS 16.0 and qualitative analysis was content based.

While analysing the quantitative data collected through the questionnaires, descriptive statistics was used to find out the percentages and frequencies of the demographic features of the students. The variables of the perception on Moodle were explained with the lowest and the highest scores of mean and standard deviation. Then t-tests were carried out based on comparison of different groups and variables such as gender, age and different grade levels. In addition, one way ANOVA was conducted to analyze and compare the significant differences in perceptions within and between groups who had different degrees of problems in accessing the Moodle system. The results of the analysis were tabulated and interpreted (See Chapter IV). The significant degrees among groups were accepted as 0.05 degrees.

Qualitative data was analyzed using open coding method. Responses from each participant were analyzed in detail and in isolation from those other participants. Sentences, phrases and words were studied separately in line with relation to the topic and analyzed according to their relevance. Through repeated comparisons, similar ideas were integrated until major themes established for each study question.

There were multiple passes in the analysis process of these responses and the keywords were identified accordingly. Then, the keywords were classified into broader categories that might be refined and challenged until the keywords were classified reasonably to provide insights for the study. Eisner (1991) argues that "there are no operational defined tests that can be applied to the qualitative research" (p.53). Researcher and a colleague analyzed, coded and categorized the data for the reliability of coding. Moreover, another coder independently coded all the responses of the participants. Through this process, two sets of themes generated for each question and the coders compared the responses. However, when discrepancies were taken into consideration and coders' were not able to reach an agreement on the meaning the theme was coded again.

# **3.7 Conclusion**

To conclude, detailed information about the research design of the study was presented in this chapter. Information about the participants, the materials used to collect data as well as data collection and data analysis procedures were explained in detail. The findings and the discussions of the designed research will be presented in the following chapter.

#### **CHAPTER IV**

#### **FINDINGS and DISCUSSION**

# 4.0 Introduction

The rapid growth of technologies has developed various kinds of learning management systems (LMS) to be used in the education environments. Moodle is one of the widely used LMS systems in the education processes. Implementation of the Moodle system in TMK has brought up many questions on how frequently and effectively the system is used and how the students and the teachers perceive the implemented system.

This chapter aims to present the data collected through qualitative and quantitative tools. Quantitative data was collected using questionnaires to examine the way students perceived the use of the Moodle system in Turk Maarif Koleji (TMK). In the following sections, first, findings of the quantitative analysis will be presented in tables. Then a discussion of each of these findings in relation to demographic features and other variables will be provided. Following this presentation, results of the analysis of qualitative data collected from focus groups will be presented. Finally, comments will be made regarding the relationship between students' perceptions of the use of the system in this particular school.

## 4.1 Demographic Features of the Participants

Questionnaires were distributed to students to understand their perceptions of the Moodle system. Following table (Table 1) presents their age, gender and class distribution.

Age		
	Student	%
	f	
13-15	130	39.0
16-18	203	61.0
Total	333	100
Gender		
Female	173	52.0
Male	160	48.0
Total	333	100
Class		
7, 8, 9 (secondary)	131	39.3
10, 11, 12 (high)	202	60.7
Total	333	100

 Table 1. Demographic Features of the Students

Table 1 shows that a total of 333 students participated in the study and the students were divided into two age groups. Thirty nine percent (n=130) were between 13-15 and 61% (n=203) were between the ages of 16-18 age group. One hundred and seventy three (52 %) respondents were females and 160 (48%) were males. Moreover, 131 (39.3%) respondents were enrolled in grades 7, 8, and 9 (secondary grades) while 202 (60.7%) were enrolled in grades 10, 11, and 12 (high grades). Sixth grade students were not included in the survey because this academic year was their first experience with the Moodle system and it was considered that they did not have the substantial knowledge and opinion necessary to respond to the questionnaire. For this reason the two groups did not have equal number of participants, i.e. less number of participants in the secondary group.

## 4.2 System Access

Data about the frequency of students experiencing problems accessing the system have also been collected through the questionnaire, because this was considered to be an important variable affecting students' perceptions of the ease of the system's use. Table 2 presents the data collected in relation to this variable.

Table 2. Students' System Access			
Problems Accessing the System	St	udent	
	F	%	
Never	148	44.4	
Seldom	146	43.8	
Sometimes	26	7.8	
Often	8	2.4	
Frequently	5	1.5	
Total	333	100	

Table 2 shows that in terms of having problems in accessing to the system outside school, 44% (n=148) of the participants responded as never, 43% (n=146) as seldom, while seven point eight percent (n=26) said they had problems sometimes. Two point four percent (n=8) said they had often experienced problems and one point five percent (n=5) said they had frequently problems in terms of access. Therefore, the majority of the participants did not have problems accessing the system out of school premise, only one point five percent (n=5) had frequent problems.

# **Students Perceptions of the Moodle System**

The data collected from the questionnaires on students' perceptions of the Moodle system was analyzed in five different dimensions. These were (a) computer self-efficacy, (b) perceived ease of use, (c) attitude, (d) system usage and (e) personal innovativeness in the domain of information technology. Out of the 23 items, six were in the first dimension (items 1-6), seven were in the second dimension (items 7-13), four in the third dimension (items 14-17), two in the fourth dimension (items 18-19) and finally four in the fifth dimension (items 20-23). Following table shows the results of the questionnaire based on these five dimensions.

Questions	N N	Mean	Std. Deviation
Computer self-efficacy	1	Mican	Stu. Devlation
1. I can access the contents of the			
Web-based system	333	4,17	1,132
2. I can freely navigate the contents of			
the Web-based system	333	4,01	1,049
3. I can use the Web-based system			
without needing to be told how it	333	3,90	1,161
functions	555	5,70	1,101
4. I can solve problems that arise on			
the Web-based system	333	2,81	1,240
-			
5. I can use the Web-based system if there are user manuals available	333	3,33	1,357
6. Overall, I am able to use the Web-	333	4,22	1,000
based system.			
Perceived ease of use			
7. It is easy to get materials from the	333	3,76	1,160
Web-based system		- ,	,
8. My interaction with [the system] is	333	3,75	1,141
clear and understandable			
9. I find [the system] easy to use	333	3,72	1,227
10. System gives me more control over	333	3,06	1,267
my learning	555	5,00	1,207
11. System helps me to learn more	333	2,96	1,314
efficiently	555	2,70	1,514
12. System is advantageous for my	333	3,05	1,290
learning	555	5,05	1,290
13. Using Moodle increases my	333	2,66	1,353
creativity.	555	2,00	1,555
Attitude			
14. Learning on the Web-based system	222	2.02	1 205
is fun	333	3,03	1,395
15. Using the Web-based system is a	222	2.20	1 007
good idea.	333	3,30	1,337
16. The Web-based system is an		• • • •	4.040
attractive way to learn.	333	3,00	1,342
17. Overall, I like using the Web-			
based system.	333	3,11	1,371
System usage			
18. I use the Web-based system on a			
scale of 1- never to 5- a lot	333	2,93	1,462
19. The number of hours I spend on			
	222	2.65	1 420
the Web-based system, on a scale of 1-	333	2,65	1,439
never to 5- a lot.	· · · ·		
Personal innovativeness in the domain of	information	technology	
20. If I heard about a new information		<b>a a a</b>	1 100
technology, I would look for ways to	333	3,50	1,198
experiment with it			
21. Among my peers, I am usually the			
first to try out new information	333	2,76	1,190
technologies			
22. In general, I am hesitant to try out			
new information technologies (reverse-	333	3,65	1,196
scored)			,
23. I like to experiment with new	333	3,88	1,210

Table 3.Students' Responses to the Questionnaire Items

The responses to the items of the first dimension of the questionnaire indicate that students are self efficient in terms of computer use. The highest mean score in the computer self-efficacy dimension is for the statement "Overall, I am able to use the Web-based system" ( $\overline{X}$ =4.22, S=1.000). The mean score for the statement "I can access the contents of the Web-based system" is also high ( $\overline{X}$ =4.17, S=1.132). However, when we compare 4 items in dimension one, the weakest part of the students are seen in the statement "I can solve problems that arise on the Web-based system" with a mean score of  $\overline{X}$ =2.81 (S=1.240).

The mean score for the perceived ease of use dimension indicates that students find the system easy to use. However, when each statement's mean score is examined, three statements show high scores. These are "It is easy to get materials from the Web-based system" ( $\overline{X}$ =3.76, S=1.160), "My interaction with [the system] is clear and understandable" ( $\overline{X}$ =3.75, S=1.141) and "I find [the system] easy to use" ( $\overline{X}$ =3.72, S=1.227). Students' responses to the perceived ease of use dimension indicate that the improvement of their creativity is the weakest part. As the lowest mean score for the statement "Using Moodle increases my creativity" is  $\overline{X}$ =2.66 (S=1.353).

In terms of attitude, students' responses to each item in this dimension show that they think the system is a good idea, they have fun when using the system, find the system attractive and they also like the system. Mean scores of statements are very close, where "Using the Web-based system is a good idea" has a mean score of  $\overline{X}$ =3.30 (S=1.337) and the lowest mean score is  $\overline{X}$ =3.00 (S=1.342) for "The Webbased system is an attractive way to learn" statement. Students are seen to show positive attitudes towards the system. System usage dimension has the lowest mean scores among all dimensions, where the statement "I use the Web-based system" mean score is  $\overline{X}$ =2.93 (S=1.462) and the mean score of the statement "The number of hours I spend on the Web-based system is  $\overline{X}$ =2.65 (S=1.439). The findings reveal that the students are not using the system as frequently as it would be expected.

The last dimension's items reveal that the students do not have big differences in terms of personal innovativeness in the domain of information technology as the lowest mean score here is  $\overline{X}$ =2.76 (S=1.190) for the statement "Among my peers, I am usually the first to try out new information technologies" and the highest is  $\overline{X}$ =3.88 (S=1.210) for the statement "I like to experiment with new information technologies. "These findings indicate that the students are open to new technologies and they experiment such systems without any hesitation.

Generally, the students are able to cope with the systems like Moodle as they seem to be self-efficient with computers as this digital age requires and they do not seem to have problems while using such system. They also have positive attitudes towards the system and also are innovative in terms of using technological systems. However, the use of the system is the weakest side of the students where they are rather reluctant to use the system.

Dimensions	Ν	$\overline{X}$	S
Computer self-	333	3.74	.765
efficacy			
Perceived ease of use	333	3.28	.951
Attitude	333	3.11	1.206
System usage	333	2.78	1.315
Personal	333	3.45	.818
innovativeness in the			
domain of			
information			
technology			
General score	333	3.35	.737

 Table 4. Students' Responses based on Five Dimensions

According to table 4, students believe that they are confident in using computers in general because the mean score of their responses to dimension one (computer self-efficacy) are  $\overline{X}$ =3.74 (S=.765). Students' also found the system easy to use as their mean score for dimension two (perceived ease of use) was  $\overline{X}$ =3.28 (S=.951). As for dimension three (attitude) respondents' attitudes towards the system are positive with the mean score of  $\overline{X}$ =3.11 (S=1.206). The mean scores for students' responses to dimension four (system usage) is  $\overline{X}$ =2.78 (S=1.315), showing that students' frequency in using the system is moderate. The mean score for the participants' responses for dimension five (personal innovativeness in the domain of information technology) is  $\overline{X}$ = 3.45 (S=.818), indicating that students are innovative.

Generally the reluctances of students in using technological systems like the Moodle can be considered to be the lack of technology skills, problems about the usage, attitudes or students not being innovative. The findings in this study revealed that even though students were self-efficient with computers, found the system easy to use, had positive attitudes and were also innovative, they did not use the system frequently for some reason. Therefore, it might be argued that the traditional teaching-learning concepts are some kind of habitually formed and are embedded in teaching practises while the adaptation of new technologies needs some time to be truly functional.

# 4.3 Students' Perception of the Moodle System According to Different Variables

Data was also analysed based on students' gender, age and class. T-tests were conducted for each of these variables in relation to their responses to the questionnaire to see if any of these variables were significant for their perception of the system. Following sections include presentations of these findings.

The following table (Table 4), shows that there is no statistically significant difference between males and females in four of the dimensions while they differed significantly in only one dimension.

 Table 5. T-test Results of the Students Perceptions on Moodle System According

 to Their Gender

	Gender	Ν	$\overline{X}$	S	Df	Т	Р	significance
Computer self-	Female	173	3.72	.734	33	492	.623	P>0.05
efficacy	Male	160	3.76	.800	1	492	.025	
Perceived ease	Female	173	3.34	.914	33	1.209	.228	P>0.05
ofuse	Male	160	3.21	.987	1	1.209	.228	
Attitude	Female	173	3.16	1.182	33	.821	412	P>0.05
Attitude	Male	160	3.05	1.232	1	.821	.413	
Crustom use co	Female	173	2.81	1.353	33	407	(70	P>0.05
System usage	Male	160	2.75	1.276	1	.427	.670	
Personal	Female	173	3.35	.710				
innovativeness in the domain of information technology	Male	160	3.55	.912	33 1	-2.164	.031	P<0.05
General score	Female	173	3.36	.714	33			P>0.05
	Male	160	3.34	.763	1	.227	.820	1 0.05

The mean scores of males and female students in terms of computer selfefficacy are very close. The mean score for females is  $\overline{X}$ =3.72 (S=.734) and for males it is  $\overline{X} = 3.76$  (S= .800). Moreover, the mean scores of the two groups in terms of perceived ease of use do not show a big difference, indicating that they both find the system easy to use. Mean scores for females is  $\overline{X} = 3.34$  (S=914) and males' is  $\overline{X} = 3.21$  (S=.987) which again show no statistically significant difference. Female students' mean score in terms of attitude is  $\overline{X} = 3.16$  (S=1.182) and males students' mean score is  $\overline{X} = 3.05$  (S=1.232), indicating no significant difference. System usage mean scores of females is  $\overline{X} = 2.81$  (S=1.353) and males is  $\overline{X} = 2.75$  (S=1.276) revealing no significance difference. However, in terms of personal innovativeness in the domain of information technology, mean score of female students is  $\overline{X} = 3.35$ (S=.710) while the mean score for males is  $\overline{X} = 3.55$  (S=.912). This finding suggest that there is a statistically significant difference between the two groups (t=-2.164), indicating that male students are somehow more innovative than female students in terms of technology. However, the mean scores reveal that this significant difference is not meaningful and both genders are innovative.

Gender issues related to using the technology have been debated in various academic studies, some studies revealed that there are some differences while others argue for the opposite. In this study, the findings indicate that both female and male students are self-efficient in computer skills as well as both finding the system easy to use. Both genders have positive attitudes towards the system and they use the system nearly at the same level. However, the only significant difference this study reveals among females and males is in the personal innovativeness in the domain of technology which is not meaningful and both groups are seen to be innovative.

Table 5 shows the t-test for the comparison of mean scores of different age groups for different dimensions. According to this table, there are statistically significant differences between the groups in three dimensions while there is no significant difference in two of the dimensions.

to Then Age								
	Age	Ν	$\overline{X}$	S	Df	Т	Р	Significanc
								e
Computer self-	13-15	130	3.78	.739	33	.745	.457	P>0.05
efficacy	16-18	203	3.71	.783	1	.743	.437	
Perceived ease	13-15	130	3.52	.929	33	3.815	.000	P<0.05
ofuse	16-18	203	3.12	.933	1	5.815	.000	
Attitude	13-15	130	3.53	1.073	33	5.283	.000	P<0.05
Attitude	16-18	203	2.84	1.212	1			
Curstom use se	13-15	130	3.31	1.248	33	( 221	1 000	P<0.05
System usage	16-18	203	2.44	1.245	1	6.221	.000	
Personal	13-15	130	3.47	.839				
innovativeness in the domain of information technology	16-18	203	3.43	.806	33 1	.390	.697	P>0.05
General score	13-15	130	3.56	.732	33	4 20 4	000	P<0.05
	16-18	203	3.22	.711	1	4.204	.000	

 Table 6.T-test Results of the Students Perceptions on Moodle System According to Their Age

Table 6 shows that students between the ages of 13 and 15 have a mean score of  $\overline{X}$ =3.78, (S=.739) in terms of computer self-efficacy while the mean score of students who are between 16 and 18 is  $\overline{X}$ =3.71 (S=.783). In terms of computer self-efficacy the calculated t-scores did not indicate any significant differences (t= .745). Moreover, 13 and 15 age group's perceived ease of use mean score is  $\overline{X}$ =3.52 (S=.929) and the score of students group 16 and 18 is  $\overline{X}$ =3.12 (S=.933), indicating that there is a significant difference (t=3.815) between the two groups. Perceptions of the students of 13 and 15 age group. There is a meaningful significant difference in terms of attitude (t=5.283), showing that younger students show more interest to the

system. The mean score for students aged 13 and 15 is  $\overline{X}$  =3.53 (S=1.073), while the score of students aged 16 and 18 is  $\overline{X}$  = 2.84 (S=1.212).

In terms of system usage, the mean scores of 13 and 15 year olds is  $\overline{X} = 3.31$  (S=1.248) and the mean score of 16 and 18 year olds is  $\overline{X} = 2.44$  (S=1.245). There is a significant difference (t=6.221), indicating that students in the 13 and 15 age group use the system more frequently than the 16 and 18 age group. Furthermore, the mean score of personal innovativeness in the domain of information technology for students aged 13 and 15 is  $\overline{X} = 3.47$  (S=.839) and the mean score for the same dimension for students in the of 16 and 18 age group is  $\overline{X} = 3.43$  (S=.806), which indicates that there is no significant difference (t=.390) and both groups are equally innovative.

Participants' age variation in the present study seems to have affected their perceptions of the Moodle system in three aspects. Firstly, younger students (13-15) seem to find the system easier to use than the older students (16-18). Secondly, the only meaningful difference seems to be in the attitude dimension, where students in the 13 to 15 aged group showed more positive attitudes than the 16 to 19 aged. Thirdly, younger students used the system more frequently than the older. In contrast, both age groups were self-efficient in computer skills and seemed to be equally innovative; generally this would be expected to affect their technology usage whereas this is seen not be valid for this study.

# 4.4 Comparison of Different Grade Levels According to Five Dimensions

T-tests for the comparison of mean scores of different grade levels for five dimensions are presented in the following table (Table 6). There are significant differences in three of the dimensions while two dimensions show no statistically significant difference.

Table 7. Comparison of Different Grade Levels According to The Differenties								
	Class	Ν	$\overline{X}$	S	Df	Т	Р	Significance
Computer self-	7-9	131	3.74	.756	33	.148	.882	P>0.05
efficacy	10-12	202	3.73	.773	1	.140	.002	
Perceived ease	7-9	131	3.45	.959	33	2.768	.006	P<0.05
ofuse	10-12	202	3.16	.929	1	2.708	.000	
Attitude	7-9	131	3.43	1.141	33	4.012	.000	P<0.05
Attitude	10-12	202	2.90	1.203	1	4.012	.000	
C	7-9	131	3.28	1.274	33	5.024	1 000	P<0.05
System usage	10-12	202	2.46	1.241	1	5.834	.000	
Personal innovativeness	7-9	131	3.47	.831	- 33			P>0.05
in the domain of information technology	10-12	202	3.43	.810	1	.430	.667	1 ~ 0.03
General score	7-9	131	3.51	.746	33	3.221	.001	P<0.05
	10-12	202	3.25	.715	1	3.221	.001	

 Table 7. Comparison of Different Grade Levels According to Five Dimensions

For computer self-efficacy, the mean score of students in grades 7, 8 and 9 (secondary level) is  $\overline{X}$ =3.74 (S=.756) and the mean score for students in classes 10, 11 and 12 (high school level) is  $\overline{X}$ =3.73 (S=.773). There is statistically no significant difference in terms of computer self-efficacy. In terms of perceived ease of use the mean scores of students in grades 7, 8 and 9 is  $\overline{X}$ =3.45 (S=.756) and the mean score of grades 10, 11 and 12 is  $\overline{X}$ =3.16 (S=.929). There is a significant difference (t=2.768) for perceived ease of use, indicating that secondary school students find the system easier to use than the high school students. Mean score of students in grades 7, 8 and 9 is  $\overline{X}$ =3.43 (S=1.141) and the mean scores of students in grades 10, 11 and 12 is  $\overline{X}$ = 2.90 (S=1.203). There is a significant difference (t= 4.012) which is meaningful, showing that secondary school students' attitudes towards the Moodle system are more positive than the high school

students. In terms of system usage, the mean score of students in grades 7, 8 and 9 is  $\overline{X}$ =3.28 (S=1.274) and students in 10, 11 and 12 have a mean score of  $\overline{X}$ =2.46 (S=1.241) presenting that there is a statistically significant difference (t=5.834). This shows that secondary school students are using the system more frequently than the high school students. Students' mean scores for personal innovativeness in the domain of information technology is  $\overline{X}$ =3.47 (S.831) for grades 7, 8 and 9 and for grades 10, 11 and 12 the mean score is  $\overline{X}$ =3.43 (S=.810), indicating that there is statistically no significant difference between two groups in this dimension.

The grade levels of the students were seen to affect their perceptions of the Moodle system and the findings resemble the findings of the age variation. Regarding the students' different grade levels, all the students seem to be innovative and self- efficient with computers. Although statistics showed differences in three dimensions, the only meaningful difference was in system usage. One of the differences was seen in perceived ease of use, where secondary level students found the system easier than the high school students. The other difference was seen in their attitudes towards the system as the secondary levels showed more positive attitudes than the high level grades. Lastly, the only meaningful difference was observed in terms of the system usage, where the secondary level students used the system more than the higher students.

# 4.5 Effect of System Access on Perception of Moodle

As part of the analysis, students were asked to state the frequency of problems they experience when accessing to the system on a five level Likert scale. First the descriptive statistics results of students' perception towards the Moodle system according to their Moodle access problems are given in Table 8. Then, ANOVA results are presented in the following table (Table 9).

mooule Syst	CIII	Moodle access	N		S
		problems		X	
		never	148	3.90	.871
		seldom	146	3.64	.624
~		sometimes	26	3.33	.721
Computer self- efficacy		often	08	3.91	.503
•		frequently	05	3.63	.730
		total	333	3.74	.765
Perceived ease	of	never	148	3.51	.979
use		seldom	146	3.14	.880
		sometimes	26	2.66	.688
		often	08	3.37	.931
		frequently	05	3.22	1.430
		total	333	3.22	.951
		never	148	3.23	1.296
Attitude		seldom	146	3.09	1.105
Attrice		sometimes	26	2.42	.974
		often	08	2.62	1.260
		frequently	05	3.35	1.180
		total	333	3.11	1.206
		never	148	2.92	1.393
System usage		seldom	146	2.66	1.209
System usage		sometimes	26	2.34	1.286
		often	08	3.31	1.334
		frequently	05	3.90	3.900
		total	333	2.78	2.788
Personal		never	148	3.47	3.478
innovativeness	in	seldom	148	3.45	3.478
the domain			26	3.26	3.269
information	01	often	20	3.78	3.781
technology		frequently	08	3.05	3.050
technology		total	333		
				3.45	3.451
		never	148	3.51.	3.515
Conorol		seldom	146	3.27	3.278
General score		sometimes	26	2.87	2.874
		often	08	3.45	3.451
		frequently	05	3.38	3.382
		total	333	3.35	3.358

 Table 8 Descriptive Statistics Results of Students Perception Towards the

 Moodle System According to Their Moodle Access Problems

The results of the second analysis using ANOVA about the students' system access problems are presented below in table 9.

		Sum of	df	Mean	F	Р	Significance
		squares		square			
Computer	Between	9.784	4	2.446		.002	P<0.05
self-efficacy	groups				4.336		
	Within	185.016	328	.564			
	groups						
	Total	194.800	332				
Perceived ease	Between	20.743	4	5.186	6.085	.000	P<0.05
ofuse	groups						
	Within	279.521	328	.852			
	groups						
	Total	300.264	332				
Attitude	Between	18.294	4	4.573		.013	P<0.05
	groups				3.228		
	Within	464.720	328	1.417			
	groups						
	Total	483.014	332				
System usage	Between	18.360	4	4.590	2.708	.030	P<0.05
	groups						
	Within	555.965	328	1.695			
	groups						
	Total	574.324	332				
Personal	Between	2.644	4	.661	.987	.415	P>0.05
innovativeness	groups						
in the domain	Within	219.626	328	.670			
of information	groups						
technology	Total	222.270	332				
General score	Between	10.754	4	2.688	5.188	.000	P<0.05
	groups						
	Within	169.965	328	.518			
		107.700					
	groups	107.700					

Table 9. ANOVA Results of Students System Access Problems

Table 9, shows that there are statistically significant differences between students perceptions of computer self- efficacy (F=4.336, p<0.05), students ease of use (F=6.085, p<0.05), students' attitudes (F=3.228, p<0.05), and students system

usage (F=2.708, p<0.05), and general score of students perception towards Moodle system (F=5.188, p<0.05) in terms of their Moodle system access. However, the only dimension that indicates no significant difference (F=.987, p>0.05) is between students perception of personal innovativeness in the domain of information technology.

The perceptions of the students who "never" have Moodle access problem are more positive than those students who experience having different degrees of problems. Since these students can find more opportunities than the students who are having problems for accessing to the system outside school, naturally they seem to find the Moodle system easy to use.

There is a significant difference between the students "never" having Moodle access problem, and the students "sometimes" having Moodle access problem in terms of students' attitudes. There is also a statistically significant difference between the students "seldom" having Moodle access problem, and the students "sometimes" having Moodle access problem in terms of students' attitudes.

Students who are not facing problems in accessing the Moodle system seem to have positive attitudes towards the Moodle system. The system usage perceptions of the students "often" having Moodle access problems seem to be more positive than the others which is interesting because it would be expected that when students have problems accessing the system they would not be able to develop positive attitudes. In addition, there is no statistically significant difference between the findings of the students' personal innovativeness in the domain of information technology in relation to their degrees of problems in accessing the systems.

#### 4.6 Teachers' Perceptions and Opinions Towards Moodle System

In this section, findings about the focus groups conducted with 12 English teachers will be presented. The data about teachers' perceptions and opinions about the Moodle system were collected through five guiding interview questions. These questions were:

- 1- What are the benefits of using Moodle in your English courses?
- 2- In what terms has the Moodle made your students successful?
- 3- What are the needed requirements for a teacher who is using Moodle for teaching English?
- 4- Do you believe that school facilities are adequate for Moodle system to function?
- 5- What are the attitudes of the students about the implementation of the Moodle system?

As mentioned earlier, these were only guiding questions and as the discussion unfolded in the focus groups, further questions were added to facilitate the collection of rich data. The emerging themes from the analysis of the qualitative data were organized under four headings and these are (a) the frequency of use and the reasons, (b) type of use, (c) system structure and (d) general opinions about the system.

Majority of the teachers (n=9) mentioned that they did not use the system frequently because some students were still facing problems with the system, like password, admin and access issues. Moreover, from two focus groups only three teachers seemed to feel confident in using the system as frequently as possible. "*The system is perfectly helpful during the revision week as well as for presentations and practices*" (Focus Group Discussion 1, Secondary Grade Teachers), quoted one of teachers. The other teachers' responses indicated that the reason for ignoring the system was the lack of technological knowledge. One striking response came from a teacher, who had been teaching English in TMK for eleven years but had been in the profession for twenty years: "I forced myself to connect to Moodle with English courses and understand the philosophy of this system, but could not find any connection or reason to use it". This teacher also stated: "If I do not use the board to write and have my students write down what I dictate to them, I do not believe they will learn" (Focus Group Discussion 2, High School Grade Teachers). Another teacher supported her colleague by adding: "Absolutely true, I have been teaching for the last twelve years and I know that academics support the new trends but these trends are theoretical not practical, I cannot teach without my marker and the board" (Focus Group Discussion 2, High School Grade Teachers). These teachers underlined that traditional teaching was the best way to teach and supported their views as quoted, especially pinpointing that they did not believe that the system was beneficial.

Despite the fact that the frequency of use was not high, among this group of teacher who participated in the discussions, it was clear that teachers used the system with various reasons. The majority of teachers (n=8) pointed out that they used the system for teaching grammar one of the teachers commented that: "*I know that this is traditional teaching but I always used the system for teaching grammar because I believed that this is more suitable for my students*" (Focus Group Discussion 1, Secondary Grade Teachers). Two teachers responded as using the system for lecturing in the class, as projecting the prepared course material to the whiteboard which saved time for more practice. They also added that the material to be practised was uploaded before the course and the students printed out and stuck them in their notebooks before the lesson which again saved them quite a lot of valuable in-class

teaching time. Another preferred type of use seemed to be uploading revision materials to the system for students to access which most teachers (n=10) said they used right before the exams. In addition, the system was used for collecting assignments; a teacher stated "*Students uploaded assignments and I gave feed-back* (Focus Group Discussion 1, Secondary Grade Teachers)", five of the teachers said they used the system for this purpose. However, one teacher stated "*I announced the deadline for the assignments to be uploaded, it ended up as a big disaster the system crushed*" (Focus Group Discussion 2, High School Grade Teachers). Some teachers (n=7) also stated that they gave up using the system for collecting assignments due to the same reason. Moreover, "*Nobody taught us how to grade*", "*I have no time for struggling with the marking*", (Focus Group Discussion 2, High School Grade Teachers), "*We lack the technological knowledge*" "*time consuming*" (Focus Group Discussion 1, Secondary Grade Teachers) were the statements of some teachers (n=6) for not using the system.

One teacher, (Focus Group Discussion 2, High School Grade Teachers) claimed that she was using the system for giving information about the International English Language Testing System (IELTS) examination which saved time for her other class work. Furthermore, teachers responded as using the system for mini quizzes, comprehension texts, presentations and web sites like ESL Cafe and also for extra composition tasks. However, each teacher used one or two of these ways of using the system and there were no one teacher who used the system in more than two different ways. The analysis of the data for types of use revealed that teachers seemed to use various types of the available options in Moodle system but their uses were limited to a certain degree.

In addition, in terms of frequency and type of use, majority (n=9) of the teachers stated that the school's internet provision was not reliable and the system crushed at some stages. Lack of confidence in the system and the internet seemed to affect teachers and de-motivate them. As much as 10 of them stated they felt sorry for the effort they spent at times as they could not finalize their work. To illustrate; "Internet is a must", "Internet let me down for several times", "I have to bring my 3G" (Focus Group Discussion 1, Secondary Grade Teachers) were some phrases from the discussions. Beside these, some teachers (n=4) stated in the discussion that they could not access to the system from home which is an internal issue in relation to how the system works, and this hindered their work.

In general, participants thought that the system was contemporary and beneficial in the long run but at the time of the study it was not functioning well. Another common opinion of the teachers that emerged from the collected data was that teachers believed that the system was more suitable for younger students (secondary level) than high school students as the secondary group had more time to devote for understanding and comprehending the system. The reason for this opinion was that the high school students were studying hard to sit for international exams like IELTS and International General Certificate of Secondary Education (IGCSE). One teacher quoted *"System can be used for grades nine and ten for basic English"*, and also added that *"Students who are taking IELTS and IGCSE exams have to work on past papers and sit for mock exams, no time and need for Moodle"* (Focus Group Discussion 2, High School Grade Teachers). Generally, it seemed that the teachers who disliked the system did not like it because they lacked the necessary knowledge and skills to carry out electronic feed-back and grading. More enthusiastic teachers, however, seemed to find their own solutions for the non reliable internet facilities of

the school, such as 3G connections. Interestingly, one teacher commented on the piloting period of the system which might be an answer to dislikes of the system. The comment was that the pilot students suffered a lot during the piloting stage and had low marks due to the grading method. This was due to the fact that the grading system lacked the traditional written feed-back which usually includes teachers giving comments about the structure, pointing out errors and also underlining the mistakes. The same teacher also added that those students rumoured about the system and influenced others which may have developed barriers towards the system.

Finally, the general and common view of the collected data shows that teachers are not against the Moodle system but are in need of more knowledge and time to adopt the system within their everyday teaching practices. In addition, the discussion sessions revealed that the system is in need of some structuring to overcome the administrative problems that the users are experiencing while accessing the system, such as increasing the amount and reliability of internet provision within the school.

# 4.8 Discussion

Technology driven learning is argued to be one of the necessities for the digital born generation of this century. Regarding this issue, Moodle was implemented to serve the ongoing practices in TMK by providing a variety of tools to be used in all courses. Since the system is rather new, a question of whether it was 'implemented' or 'integrated' is a matter of discussion, where implementation is putting a system into practise without paying critical attention and considering the necessary and available skills, and integration is blending of resources (both human and technology) with the tools with an intension of using technologies to work for

the envisioned change in the education process. In this case, it is important to plan and apply the one that will serve the best in regards to the goals. This issue will be discussed more widely with students' and teachers' responses under the headings of (a) Moodle access problems, (b) young learners and Moodle, and finally (c) implementation or integration.

## **4.8.1 Moodle Access Problems**

Moodle access problems were considered to be an important factor that could affect the students' system perceptions. Students' not having problems while accessing to the system out of school premises seem to be self-efficient and also found the system easy to use. Considering this outcome, it could be assumed that those students' who had the opportunity of accessing to the system may have experienced the benefits of the system, therefore had more positive perceptions towards the system. Moreover, students' attitudes were also affected by the system access, the lower the degrees of access problems, and the higher the positive attitudes. Naturally, students who had never faced or had minor problems indicated to have positive perceptions to use the system to some degrees. However, the interesting point was that those students' who often had access problems had more positive perceptions than the others towards using the system which would not be expected. The underlying answer to this outcome might be the students' personal innovativeness in the domain of information technology.

#### 4.8.2 Young Learners and Moodle

As was presented earlier in the findings section, the perceived ease of use, attitudes and the system usage of students enrolled in high school are lower than secondary school students. This finding may be relevant to the students' appreciation of the system. As discussed by Miyazoe (2008), students need to appreciate the system as it is, so that they can functionally use the system for achieving their goals. Surprisingly the students' computer self-efficacy and innovativeness are very close and at the highest degree. It would be expected that innovative students would be open to new technologies and new systems and also have positive attitudes towards such systems. Interestingly, in this study computer efficacy and innovativeness has not affected high school students to have positive perceptions towards using the Moodle system. The fact that secondary school students use the system more frequently than the high school students supports the teachers' argument on system being more suitable for the younger students. Teachers' claimed that these students' were less occupied with international exam entries and could spare more time to use the system. Regarding the piloting period of the system, the students of that period are now in the high school level. One remarkable fact was quoted from a teacher about the students' 'low achievements' during that period which can be an answer for high school level students using the system at a lower degree than the secondary levels.

## 4.8.3 Implementation or Integration

Despite the low usage of the system, it was surprising that students did not claim to face big problems in accessing the system outside the school. Therefore, it seems that access was not an issue to affect the system use. One remarkable fact that generally affects the whole system and significantly the usage is that the teachers are not aware of the facilities and options the Moodle system provides. Suvorov (2010) argues that the Moodle system can be used for teaching ESOL (English to speakers of other languages) and indicates that a typical Moodle course consists of a set of tools that allow for the integration of a wide range of utility areas like administering assignments, delivery of supplementary materials, testing and assessment of students' work. Moreover, Moodle system provides time-and-place independent environments, quick-feedback and real interactions where learners "learn language, learn about the language and learn through language" (Warschauer, 1997, p. 471). Since the Moodle system offers such facilities, there is a need for teachers to be aware and have substantial trainings to use the system effectively. Furthermore, the awareness and empowerment of the teachers will open the gates for innovative and digitally born students to benefit from the Moodle system. Therefore, it is obvious that the role of the teacher is important for the Moodle system to be used effectively. However, before the implementation of such technologic systems (Moodle) there is a need to bring different understandings and classroom instruction for the sake of the system not to be just implemented but to be integrated into the education process, where the role of the teacher as a knowledge transmitter should be minimized in contrast with the traditional classes (Johnson & Brine, 2000, Stepp-Greany, 2002, Sullivan & Pratt, 1996).

#### 4.8.4 Student's Perception of the Moodle System

This research revealed that all the participants were innovative and selfefficient with computer as expected from digitally born population and also found the system easy to use. However, the striking fact was that younger participants (secondary level) had more positive perceptions and used the system more than the older students (high school level). This again points to the process during the implementation and the piloting period as quoted by teachers and seems that the system was just implemented not integrated into the current process. Therefore, regarding this issue, teachers and students seems to be in need of more empowerment and awareness about the Moodle system. Teachers' digital literacy and knowledge about the applicable functions along with students' barriers and misconceptions about the system needs to be reviewed by the school authority. As Hubbard (2006) argues "many current language teachers have limited experience with computer assisted language learning (CALL) software from the learners' perspective and may be novices' as well using technology for teaching" (p.313). As the system is new and the nature of internalization comes gradually, there is a need for more time for teachers and students to gain experience with the system. Furthermore, teachers' awareness, substantial knowledge and skills are important and would be expected to act as a bridge to students' positive perception towards the system.

# 4.9 Conclusion

To conclude, the analysis of the findings and the discussion in relation to the relevant literature has been presented in this chapter. The major findings reveal that students seem not to have faced big problems in accessing the system outside school. Students are highly innovative and self efficient in using the technology because they find the newly implemented Moodle system easy to use and have developed positive attitudes towards the system. However, when the students' system use is examined, they are seen to be rather reluctant in using the system especially the high school students. An important issue that came out of this study is the teachers' self-efficacy with computers and their lack of knowledge and training which might have caused the Moodle system not to be used as frequently and variably as desired. Furthermore, these may also be considered to be the reasons to affect the students' perceptions and attitudes towards the system. The following chapter will summarize and synthesize the major findings in parallel with the main research questions. Recommendations and suggestions for further research will also be provided in the following chapter.

## **CHAPTER V**

#### **CONCLUSIONS AND RECOMMENDATIONS**

# **5.0 Presentation**

The present study aimed to examine the students' perception and teachers' opinions on using Moodle system in TMK for English language lessons. This final chapter of the thesis will first present the summary of the results of the conducted survey and the focus groups. After discussing the results, this chapter will draw some conclusions about the topic and give recommendations for further research studies.

# 5.1 Summary of the Results

This study was designed to examine the perceptions of the students and opinions of the English language teachers on using the Moodle system in EFL classes in TMK. As mentioned in the first chapter, students in an examinationdominated culture have very little to say on taking responsibilities for their own learning. In accordance with global education environments and the necessity of the twenty first century, leading countries such as the United States are using "educational practices with significant evidence of success in improving student achievement and support [the] development, implementation, replication, and further evaluation of promising innovative practice" (United States Department of Education, 2009, p1). The traditional teaching culture is valid in general for North Cyprus schools and the education system is in need of a shift from traditional memorization style to innovative student-centred teaching. The implementation of the Moodle system in TMK was an attempt in providing a kind of blended learning for the students to enhance their knowledge and to become innovative for their future education in the current digital age. It targeted to provide a rich resource of materials for the students, incorporating the current technological environment in learning to go hand-in-hand with face-to-face in-class teaching. In other words, Moodle system attempted to improve autonomous learning on the part of the students.

The following questions were asked to examine and explore students' and EFL teachers' perceptions on using Moodle in their English language classes:

- 1- How is the general perception of the students' toward the Moodle system in EFL classes?
- 2- Are there any differences between perception of the students' toward the Moodle system in EFL classes according to their age, gender, grade level and system access?
- 3- What are the teachers' opinions about using Moodle in English language lessons?

By referring to chapter IV, the above research questions will be discussed in detail.

Regarding the students' perceptions towards the Moodle system, the results of the present study showed that they were digitally literate and able to cope with newly implemented systems. The results also showed that the students' confidence and skills in using technologic devices like computers are high enough to fulfil the requirements to use systems like Moodle without any problems. Furthermore, the necessary substantial knowledge to experiment with new technologies within the present digital age indicated that students were highly innovative in this regard. The results also revealed the students' openness to try and practice with new technological systems. However, the striking point was that these positive

perceptions seemed not to persuade or act as a catalyst for the students to use the implemented Moodle system frequently. The results of the survey, which was conducted in April 2011, also indicated a low frequency of the students using the system. Taking into account this result, the lack of teachers' technology skills might be an important issue to consider for the students' low usage of the system. On this note, Prensky's (2001), argument on teachers being "digital immigrants" and also being hampered in using the technology by their digital cultural heritage is relevant here. Moreover, the highest frequency of use among the students was during the exam period. Considering the facilities that Moodle provides, the electronic version of a lecture summary preference was an interesting result that brought to mind the importance of mediating artefacts in language classes as discussed by Salaberry (2001) and Bates (2005) where teacherscan benefit from different kind of tools available in the Moodle system to prepare on-line materials that can blend with the face-to-face teaching. Hinkelman & Johnson's (2010) preliminary report on a threeyear development about teachers' cooperation and utilization of Moodle system functions reveals that an interactive development strategy based on the direct needs of a teaching team was critical to developing immediately useful tools such as the Moodle course formats and repositories. The problem in TMK seems to be the high expectations of school authority in terms of teachers' utilizing and integrating the implemented system into their discipline area but somehow neglecting their confidence and competence in using educational technologies.

The results also indicated that the younger the students, the higher the positive perceptions towards the Moodle system. The school survey indicated that especially seventh grade were very enthusiastic and had the highest degree of using and benefiting from the system. Class distribution results also supported the results of age variable, pinpointing that the secondary grades like year eight and nine had more positive attitudes and were using the system more than the high school participants. Teachers' statements in the discussion sessions also pointed out that the system was more suitable for the secondary levels, which might be another variable affecting the positive perception of the students towards the system in these grades. Bower and Wittmann (2009), research about pre-service teachers' perceptions about Learning Activity Management System (LAMS) and Moodle results indicate that pre-service teachers preferred to use Moodle for mature students rather than younger students. However, this current research suggests that once in practice teachers seem to prefer Moodle with younger students because of time limitation. In addition, the context of North Cyprus exam oriented education system is also an issue that is possible affect the use of Moodle.

The Moodle system facilitates and promotes student-centred learning where EFL/ESL learners can be connected to the world and finds themselves in a natural environment to practice with native speakers as well as with their peers. As Wolter (2000) argues, if learning starts to be shifted from theoretical to more practical processes learner autonomy is promoted. Such facilities did not seem to be used in TMK as most teachers were not aware of these facilities and the system structure needed to be upgraded. The qualitative researchstudy titled "The Role of Personalized Integrated Educational Systems in the Information-Age Paradigm of Education" by Aslan, Huh, Lee & Reigeluth (2011), conducted in three high schools supported the findings of the current study as there were discrepancies between the current use and the ideal use of technological systems like the Moodle.

System access outside the school was considered to be an important factor that would affect the students' perspectives towards the Moodle system. The results revealed that the majority of students were not facing big problems in accessing to the system, but interestingly those who were facing access problems were more willing to use the system. This might suggest that the system itself is interesting for students and they are willing to explore the possibilities despite the current setbacks.

Results revealed that the teachers lacked the necessary knowledge and skills in using the Moodle system, which might have affected the students' perceptions towards the Moodle system usage. The mismatch of the students' and teachers' digital literacy levels caused the teachers to prepare similar sets of exercises as practised in the classroom, on a computer to deliver to students via Moodle rather than preparing different interactive exercises. However, some enthusiastic teachers are trying to find ways in using the system like assignment delivery and extra links to support students' learning but none of them seems to use all the facilities that are available in the Moodle system. This finding supports the view that Bax (2003) has put forward; the technologies are generally accepted as "Pen Assisted Language Learning" becoming "Computer Assisted Language Learning". Furthermore teachers in the study have indicated that they find the system promising for the future and in the long run the system structure will be upgraded to suit the needs of students with the improvement of teacher skills. According to teachers, once these changes are done, the system will be used more effectively.

Teachers' results pinpointed that some of the facilities that could make students more autonomous and successful in using the language were not utilized. Especially the facilities like asynchronous "chat" sessions and online quizzes with instant feedbacks were not practised at the time of this research. However, with the good will of some enthusiastic teachers and younger students' positive attitudes towards the system has shown that they seem to be empowered to be autonomous in using the language.

#### **5.2 Recommendations**

The general conclusion of the research reveals that the perceptions of TMK students' towards the Moodle system in EFL classes are rather positive. However, the need of the system structure to be upgraded and the teachers' knowledge and skills in using the system to be improved emerged as the most important areas to be attended. The system structure of the implemented Moodle system in TMK needs to be more structured and the internet access to be more reliable. Teachers' awareness of the functions provided by Moodle and the possible areas for use should be raised by the help of training sessions. School authorities may cooperate with the Ministry of Education and Culture in this regard. Furthermore, it would also be beneficial if the teachers' debate and practise with their more advanced colleagues.

In addition to the improvements in the teachers' use of the Moodle, students' strengths in using the technical tools should be utilized in using the Moodle's functions to help students become more autonomous in language learning. The role of the teacher and the role of the technology should be balanced in a way that the students benefit from both at the highest degree. Blending of face-to-face teaching with the Moodle system that provides many opportunities for independent learning should be in a way that learner-centred and constructivist learning is practised. Students should be motivated to use their innovative characteristics with the Moodle system to fulfil the requirements of their long life learning. This might require the current curriculum to be revised to incorporate these features so that the teachers do not feel obliged to follow a curriculum that does not support blended learning.

## **5.3 Recommendations for Further Research**

This research was designed to examine the students' perceptions and teachers' opinions towards the Moodle system. The results of students' positive perceptions towards the use of technology and the system do not seem to match with the low utility of the system which needs to be examined more deeply in a further research. Moreover, teachers' results about the lack of technology skills to use the system with the provided varieties also revealed the need for a further research to explore their level of digital skills and the knowledge about the system.

## **5.4 Conclusion**

This chapter presented the conclusions of the implementation of the Moodle system in TMK. Results of the students' perceptions towards the Moodle system in English language classes and English language teacher' opinions about the system were also discussed in relation to the current literature on blended learning. Recommendations for the Moodle system to be more functional were made and recommendations for further research studies presented.

#### REFERENCES

- Aslan, S. Huh, Y. Lee, D. Reigeluth, C. M. (2011). The Role of Personalized Integrated Educational Systems in the Information-Age Paradigm of Education. *Contemporary Educational Technology*, 2(2), 95-117.
- Balki, R. S. (2010). *Learning Management System*. USA: Lambert Academic Publishing.
- Barr, R. B. & Tagg, J. (1995). From teaching to learning--a new paradigm for undergraduate education. *Change Magazine*, 27 (6): 12-25
- Bates. A. W. (2005). *Technology, e-learning and distance education*. London: Routledge.
- Bax.S. (2003). CALL- past, present and future, System, 31(2), 13-28.
- Beatty, B., & Ulasewicz, C. (2006). Online teaching and learning in transition: Faculty perspectives on moving from blackboard to the Moodle learning management system. *Tech Trends*, 50(4), 36–45.
- Bongey, S. B., Cizadlo, G. and Kalnbach, L. (2005) Using a course management system (CMS) to meet the challenges of large lecture classes. *Campus-Wide Information Systems, 22,* 252-262.
- Brandes, D. & P. Ginnis (1986). A guide to student centred learning. Oxford: Blackwell.
- Brandl, K. (2005) Are you ready to Moodle? *Language Learning & Technology*, 9 (2): 16–23.
- Bateson, G. (2009). Technically speaking: Creating adaptive online learning materials with the QuizPortmodule for *Moodle.The JALT CALL journal*, 5(1), 91-99

Brooks, D. W., Nolan, D. E., & Gallagher, S. M. (2001). Web-teaching: A guide to designing interactive teaching for the World Wide Web (2nd ed.). New York: Kluwer Academic.

Bower, M. & Wittmann, M. (2009). Pre-service teachers' perceptions of

- LAMS and Moodle as learning design technologies. In L. Cameron & J. Dalziel (Eds), *Proceedings of the 4th International LAMS Conference 2009: Opening Up Learning Design.* (pp. 28-39).
- Burnard, P. (1999). Carl Rogers and postmodernism: Challenged in nursing and health sciences. *Nursing and Health Sciences 1*, 241-247.
- C. Kennedy, (1988). Evaluation of the management of change.*AppliedLinguistics*, 9(4), 329-42.
- Cappel, J. J. & Hayen, R. L. (2004). Evaluating e-learning: A case study. *Journal of computer Information Sytems, 44-*(4), 49.
- Chan, C. H. & Robbins, L. I. (2006). E-learning systems: Promises and pitfalls. Academic Psychiatry, 30,491-497.
- Chen, J., Belkada, S. & Okamoto, T. (2004). How a web-based course facilitates acquisition of English for academic purposes. *Language Learning & Technology*, 8(2), 33–49.
- Cloete, E. (2001). Electronic education system model. *Computers & Education*, *36*(2), 171–182.
- Coffin, R. J. & MacIntyre, P. D. (1999). Motivational influences on computer-related affective states. *Computers in Human Behaviour, 15*, 549-569.
- Cole, M., Gay, J., Glick, J. A., & Sharp, D. W. (1971). The cultural context of learning and thinking. *Computer Information Systems*, 44(4), 49–56.

- Davis, F. D. (1989). Perceived usefulness, perceived ease of use and user acceptance of information technology. *MIS Quartely*, *13*(3), 319–340.
- Dehoney, J., & Reeves, T. (1999). Instructional and social dimensions of class web pages. *Journal of Computing in Higher Education*, *10*(2), 19–41.
- Driscoll, M. (2008). Hype versus reality in the boardroom: Why e-learning hasn't lived up to its initial projections for penetrating the corporate environment. In S. Carlinger& P. Shank (Ed.), *The E-Learning Handbook*: A Comprehensive guide to online learning (pp.29-54). San Fransisco: Pfeiffer/John Wiley & Sons.
- Dziuban, C. D., Hartman, J. L., & Moskal, P. D. (2004). Blended learning. *Educause Center for Applied Research*, *7*, 1–12.
- Edwards, R. (2001). Meeting individual learner needs: power, subject, subjection. In C. Paechter, M. Preedy, D. Scott, & J. Soler (Eds.), *Knowledge, power and learning*. London: SAGE.
- Eisner, E. W. (1991). The enlightened eye: Qualitative inquiry and the enhancement of educational practice. New York, NY: Macmillan Publishing Company.
- Ellis, R. (1985). *Understanding language acquisition*. Oxford: Oxford University Press.
- Ennis, R. H. (1987). A taxonomy of critical thinking dispositions and abilities. In J.
  B. Baron & R. J. Sternberg (Eds.), *Teaching thinking skills: Theory and practice*. (pp. 9-26). New York: W. H. Freeman.
- Felix, U. (2001). A multivariate analysis of students' experience of web-based learning. *Australian Journal of Educational Technology*, *17* (1), 21–36.

- Felix, U. (2004) E-Learning pedagogy in the third millenium: The need for combining social and cognitive constructivist approaches. *ReCALL*, 17 (1), 85– 100.
- Glaser, R. (1963). Instructional technology and the measurement of learning outcomes: Some questions. *American Psychologist*, 18, 519-521.
- Gong, M., Xu, Y., & Yu, Y. (2004). An enhanced technology acceptance model for web-based learning. *Journal of Information Systems Education*, 15(4), 365– 374.
- Hancer, M. (2003). An investigation of different approaches in the translation of measurement scales. *Balikesir University Journal of Institute of Social Sciences*, 7(10), 47-60.
- Hannafin, M., Land, S, & Oliver, K. (1999). Open learning environments: Foundations, methods, and models. In Reigeluth, C.M. (Eds.), *Instructional-Design* (pp.76).
- Hanson-Smith, E. (2001). Computer-assisted language learning. In Carter, R.
  &Nuna, D. (Eds.), *Teaching English to speakers of other languages* (pp.107-113). Cambridge University Press.
- Harden, R. M. & J. Crosby (2000). AMEE guide No. 20: The good teacher is more than a lecturer-the twelve roles of the teacher. *Medical Teacher*, 22(4), 334-347.

Haugeland, J. (1985). Artificial intelligence. Cambridge, MA: The MIT Press.

Hong, K. S., Lai, K. W., & Holton, D. (2003).Students' satisfaction and perceived learning with a web-based course. *Educational Technology & Society*, 6(1), 116-124.

- Igbaria, M., Zinatelli, P., Cragg, N., &Cavaye, L. M. (1997). Personal computing acceptance factors in small firms: A structural equation model. *MIS Quarterly*, 21(2), 279–305.
- Jeremy F. Jones. (1995). Self access and culture: retreating from autonomy. *ELT Journal*, 49(3), 228-234.
- Johnson, E.M. and Brine, J.W. (2000).Design and development of CALL courses in Japan. *CALICO Journal*, 17(2): 251–268.
- Jonassen, D. (1999). Designing constructivist learning environments. In Reigeluth C.M. (ed.), Instructional-Design Theories and Models: A New Paradigm of Instructional Theory. Volume II (pp. 115-140). Mahwah, NJ: Lawrence Erlbaum.
- Kaminski, J. (2005). Editorial: Moodle A user-friendly, open source course management system. *Online Journal of Nursing Informatics (OJNI)*, 9(1), 1-3.
- Kern, R., Warschauer, M. (2000). Introduction: theory and practice of networked language teaching. In: M. Warschauer, R. Kern, (Eds.), *Network-based Language Teaching Concepts and Practice*. (pp.139). Cambridge: Cambridge University Press.
- Khivilon, E &Patru, M.(Eds.). 2004. Information and communication technology in education: A curriculum for schools and programme of teacher development.UNESCO Documents and Publications.
- Kirkwood, A. (2006). Getting networked learning in context: Are on-line technical and information literacy skills adequate and appropriate? *Learning, Media & Technology*, 31(2), 117-131. Retrieved February 14, 2011, from PsycINFO database.

- Koper, R. (2004). Use of the semantic web to solve some basic problems in increase flexible, distributed lifelong learning, decrease teacher's Workload. *Journal of Interactive Media in Education*. 14(2), 49-56.
- Kuhn, T. (1962). The structure of scientific revolutions. Chicago: University of Chicago Press.
- Kupetz, R. &Ziegenmeyer, B. (2005). Blended learning in a teacher training course: Integrated interactive e-learning and contact learning. *ReCALL*, *17*, (2),179-196. doi: 10.1017/S0958344005000327.
- Lamb, T. (2004). Learning independently? Pedagogical and methodological implications of new learning environments. Paper presented at the Independent Learning Conference, University of Melbourne, 2003.
- Lankshear, C. &Knobel, M. (2003). *New literacies: changing knowledge and classroom learning*. London: Open University Press, UK.
- Lea, S. J., Stephenson, D. & Troy, J. (2003). Higher education students' attitudes to student centred learning: Beyond 'educational bulimia'. *Studies in Higher Education*, 28(3), 321-334.
- Leahy, C. (2004). Researching language learning processes in open CALL settings for Advanced Learners. *Computer Assisted Language Learning*, *17*, 3-4.
- Maikish, A. (2006). Moodle: A free, easy, and constructivist online learning tool. *Multimedia and Internet at Schools, 13*(3), 26–28.
- Miyazoe, T. (2008). LMS-based EFL blended learning: Blackboard vs. Moodle, *JALT* 2008 conference proceedings, 745-753.
- O'Sullivan, M. (2004). The reconceptualisation of learner-centred approaches: A Nambia case study. *International Journal of Educational Development, 24*(6), 585-602.

- Oliver. M. & Trigwell.K. (2005). Can blended learning be redeemed? *E-learning*, 2(1), 17-18.
- Osguthorpe, R. T., & Graham, C. R. (2003). Blended learning environments: Definitions and directions. *The Quarterly Review of Distance Education*, *4*, 227–233.
- Perkins, M. & Pfaffman, J. (2006). Using a course management system to improve classroom communication. *Science Teacher*, 73(7), 33–37.
- Pfaffman, J. (2008). Transforming high school classrooms with free/open source software: It's time for an open source software revolution. *The High School Journal*,91(3), 25-31.
- Posner, M.I. (Ed.). (1993). *Foundations of cognitive science*. Cambridge, MA: The MIT Press.
- Prensky, M. (2001).Digital natives, digital immigrants, Part 1.*On the Horizon, 9*(5), 2-6.
- Priyanto, A. D. (2009). Facilitating language learning with LMS: A brief review on Blackboard and Moodle. Retrieved June 8, 2011, from http://agusdepe.staff.uns.ac.id/2009/04/06/facilitating-language-learning-withlms-a-brief-review-on-blackboard-and-moodle/
- Rosenberg, M. J. (2001). *E-learning: strategies for delivering knowledge in the digital age*. New York: McGraw-Hill.
- Russek, B. E., & Weinberg, S. L. (1993).Mixed methods in a study of implementation of technology-based materials in the elementary classroom. *Evaluation and Program Planning*, 16(2), 131-142.

- Salaberry, R. (2001). "The use of technology for second language learning and teaching: a retrospective", *The Modern Language Journal*, vol. 85, no. 3, pp. 39-56.
- Schillewaert, N., Ahearne, M. J., Frambach, R. T., & Moenaert, R. K. (2005). The adoption of information technology in the sales forces. *Industrial Marketing Management*, 34, 323–336.
- Selim, H. M. (2003). An empirical investigation of student acceptance of course websites. *Computers and Education*, 40, 343–360.
- Sharma, P. & Barret, B. (2007), Blended Learning. Oxford: Macmillan.
- Skinner, B. F. (1950). Are theories of learning necessary? *Psychological Review*, 57, 193–216.
- Slavin, R. (1987). Ability grouping and student achievement in elementary schools:A best evidence synthesis. *Review of Educational Research*, 57(3), 337–350.
- Stallman, R. (1999). *The GNU project*. Retrieved July 9, 2011, from http://www. Gnu.org/gnu/thegnuproject.htlm
- Stepp-Greany, J. (2002) Student perceptions on language learning in a technological environment: implication for the new millennium. *Language Learning and Technology*, 6(1), 165–180.
- Sternberg. R. (1985). Intelligence applied: Understanding and increasing your intellectual Skills. San Diego: Harcout Grace Jovanovich.
- Strauss, A., & Corbin, J. (1990). Basics of qualitative research: Grounded theory procedures and techniques. Newbury Park, CA: Sage Publications, Inc.
- Sullivan, N. & Pratt, E. (1996). A comparative study of two ESL writing environments: A computer-assisted classroom and a traditional oral classroom. *System*, 29(4), 491–501.

- Suvorov, R. (2010). Using *Moodle* in ESOL writing classes, *TESL-EJ*, 13(2). Retrieved March 2012from <u>http://www.tesl-ej.org/wordpress/issues/volume</u> <u>14/ej54/ej54m1/</u>
- Szabo, M., & Flesher, K. (2002).CMI theory and practice: Historical roots of learning managment systems. Paper presented at the E-Learn 2002 World Conference on E-Learning in Corporate, Government, Healthcare, & Higher Education, Montreal, Canada.
- Tallent-Runnel, M. K., Thomas, J. A., Lan, W. Y., Cooper, S., Ahern, T. C., Shaw,S. M., et al. (2006). Teaching courses online: A review of the research. *Review* of Educational Research, 76(1), 93–135.
- Tashakkori, A. &Teddlie, C. (2003). *Handbook of mixed methods in social and behavioural research*. Thousand Oaks, CA: Sage Publications, Inc.
- Taylor, P. G. (2000). Changing expectations: Preparing students for flexible learning. *The International Journal of Academic Development*, 5(2), 107-115.
- Thorndike, E. I. (1913). *Educational psychology* (Vols. 1 & 2).New York: Columbia University Press.
- Trombley, K. B., & Lee, D. (2002). Web-based learning in corporations: Who is using who is not and why not? *Journal of Educational Media*, *27*(3), 137-46.
- Tsai, C.-C. (2004). Adolescents' perceptions toward the Internet: A 4-T framework. *Cyber Psychology and Behaviour, 7*, 458-463.

UCD Centre for Teaching and Learning (2005).Course Design. <u>http://www.ucd.ie/teaching/good/cou3.htm</u> undergraduate education.*Change Magazine*, 27 (6): 12-25.

- United States (US) Department of Education. (2009). *National Educational Technology Plan.* USA: US Government. Retrieved September 2011, from https://edtechfuture.org.
- vanOlphen, M. (2007). Perspectives of foreign language pre-service teachers on the use of a web-based instructional environment in a methods course. *CALICO Journal*, *25*(1), 91–109.
- Vygotsky, L. S. (1978). Mind in society. Cambridge, MA: Harvard University Press.
- Warschauer, M. (1997). Computer-mediated collaborative learning: Theory and practise. Modern Language Journal, 81, 470-481
- Wolter, B. (2000). A participant-centred approach to INSET course design, *ELT Journal*, 54(4), 311-318.
- Zhang, D., & Zhou, L. (2003). Enhancing e-learning with interactive multimedia. Information Resource Management Journal, 16(4), 1-14.

## **APPENDICES**

## Appendix A

### QUESTIONNAIRE

This study aims to examine your perception on using Moodle system in TMK.

Please read the items carefully and choose the best answer that is suitable for you.

Thank you very much for your cooperation in advance.

Nüket Gündüz (Supervisor: Dr.Çise Çavuşoğlu)

## PERSONAL INFORMATION

- 1. Age:.....
- 2. Gender: Female.... Male....
- 3. Class:....
- 4. Do you have any problems about accessing to Moodle system at your home?

Never.... Seldom....Sometimes....Often....Frequently....

## **LearningManagement Systems Coherence with Technology Questionnaire** Please read carefully and tick the appropriate option.

Please read carefully and tick the appropriate option.					
Computer self-efficacy	Strongly Disagree	Dis	Net	Ag	Strongly Agree
	ong Sagi	Disagree	Neutral	Agree	ong ree
	3ly ree	ree	al		gly
1. I can access the contents of the Web-based					
system					
2. I can freely navigate the contents of the Web-					
based system					
3. I can use the Web-based system without needing					
to be told how it functions					
4. I can solve problems that arise on the Web-based					
system					
5. I can use the Web-based system if there are user					
manuals available					
6. Overall, I am able to use the Web-based system.					
Perceived ease of use					
7. It is easy to get materials from the Web-based					
system					
8. My interaction with [the system] is clear and					
understandable					
9. I find [the system] easy to use					
<b>10.</b> System gives me more control over my learning					
<ol> <li>System helps me to learn more efficiently</li> <li>System is advantageous for my learning</li> </ol>					
13. Using Moodle increases my creativity.					
Attitude					
14. Learning on the Web-based system is fun					
15. Using the Web-based system is a good idea.					
16. The Web-based system is an attractive way to					
learn.					
17. Overall, I like using the Web-based system.					
System usage					
18. I use the Web-based system on a scale of 1- never					
to 5- a lot					
19. The number of hours I spend on the Web-based					
system, on a scale of 1-never to 5- a lot.					
Personal innovativeness in the domain of information					
technology					
20. If I heard about a new information technology, I					
would look for ways to experiment with it					
21. Among my peers, I am usually the first to try out					
new information technologies					
22. In general, I am hesitant to try out new					
information technologies (reverse-scored)					
23. I like to experiment with new information					
technologies.					

## Appendix A

Sevgili öğrenci,

Bu anket TMK'da okuyan öğrencilerin Moodle sisteminin kullanımı ile ilgili algılarını değerlendirmek amacıyla hazırlanmıştır. Sizden istenilen soruları dikkatlice okumanız ve en uygun seçeneği işaretlemenizdir.

Yardımlarınız için şimdiden teşekkürler.

Nüket Gündüz

(Danışman: Dr. Çise Çavuşoğlu)

## KİŞİSEL BİLGİLER

## 1. Yaşınız: .....

- 2. Cinsiyetiniz: Kadın ..... Erkek....
- 3. Sınıfınız: .....
- 4. Evinizde Moodle sistemine erişim konusunda herhangi bir sorun yaşıyormusunuz?

Hiçbir zaman ....Nadiren... Orta sıklıkta... Sıksık.... Her zaman....

ÖğrenimYönetimSistemiAçısındanAmaç veTeknolojiUyumuAnketi								
Bilgisayar yeterliği	Kesinlikle katılmıyorum	Katılmıyorum	Fikrim yok	Katılıyorum	Kesinlikle Katılıyorum			
1. Moodle sisteminin içeriğine kendibaşıma ulaşabilirim								
<ol> <li>Moodle sisteminin içeriğini kullanırken konu başlıkları arasında rahatlıkla yolumu bulabilirim</li> </ol>								
<ol> <li>Nasıl çalıştığı tariff edilmeden Moodle sistemini kullanabilirim</li> </ol>								
4. Moodle sistemindeoluşan problemleri çözebilirim								
<ol> <li>Eğer kullanım klavuzu varsa Moodle sistemini kullanabilirim</li> </ol>								
6. Genel olarak Moodle sistemini kullanabilirim								
Kullanım kolaylığı algısı								
7. Moodle sisteminden materyallere ulaşmak kolaydır								
8. Moodle'ın erişimi kolay ve anlaşılırdır								
9. Moodle'ın kullanımını kolay buluyorum								
10. Moodle bana öğrenmes ürecimi daha fazla control								
edebilme fırsatı verir								
11. Moodle daha ekiliöğrenmemi sağlar								
12. Moodle öğrenme sürecimi çinf aydalıdır								
13. Moodle kullanmak yaratıcılığımı artırır								
Tutum								
14. Moodle sistemi ile öğrenmek eğlencelidir								
15. Moodle sistemini kullanmak iyi bir fikirdir								
16. Moodle sistemi öğrenmek için çekicidir								
17. Genel olarak Moodle kullanmayı beğeniyorum								
Sistemkullanımı								
18. Moodle sistemini hiç kullanmam 1- çok kullanırım 5								
19. Moodle sistemini kullanmaya harcadığım saat hiç 1- çok 5								
NOT: ( kesinliklekatılmıyorum = 1'e Kesinliklekatılıyorum= 5'e eşittir. )								
Bilişimteknolojilerialanındakikişiselyenilikçilik								
20. Bilişim teknolojileriyle ilgili bir yenilik olduğunu duyarsam bu yeniliği uygulamak için fırsat ararım								
21. Arkadaşlarım arasında bilişimteknolojilerindeki yenilikleri ilk kullanan kişi benimdir								
<ol> <li>Genellikle, bilişimteknolojilerindeki yenilikleri deneme konusunda çekingenimdir (terspuanlama)</li> </ol>								
23. Yeni bilişim teknolojilerini denemek isterim								

ÖğrenimYönetimSistemiAçısındanAmaç veTeknolojiUyumuAnketi

## Appendix C

#### CONSENT LETTER FOR THE SURVEY

Dear Colleague,

You are invited to participate in a study of applying Moodle into EFL classes in TürkMaarifKoleji.This study was designed to examine the students' perception on using Moodle system in TMK's English lessons.

You were selected as a possible participant in this study because TMK is the only secondary school that has implemented MOODLE into the education process. More significally, this study will provide in-depth information on using Moodle for EFL classes in TMK and also find and convey information that might assist other schools or education communities. Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will not be disclosed. Any discomfort or inconvenience to you derives only from the amount of time taken to participate in the discussion. The discussion of the five questions will take about thirty or fortyfive minutes. No benefits accrue to you for participating in this discussion group, but your responses will be a value for this study which will give an academic perspective on using Moodle in T.RN.C secondary schools.

If you decide to participate, please print your name and sign below. I would like to indicate that, you are free to discontinue participation at any time without prejudice. Please feel free to ask questions regarding this study. You may contact me later if you have additional questions at 0533 865 3435 <u>nuketgunduz@hotmail.com</u>. Any questions about your rights may be directed to Dr.ÇiseÇavuşoğlu Assistant Chairperson Near East University Department of English Language Teaching at 0392 680 2030 or by e-mail at ccavusoglu@neu.edu.tr.

Name-----

Signature-----

Thank you for your time NüketGündüz MA Student Department of English Language Teaching Near East University

#### **Appendix D**

## **TEACHERS' DISCUSSION QUESTIONS**

Dear Colleagues,

The designed discussion questions aims to examine your perception and opinion about using Moodle system in your English language lessons. The discussion will be recorded and transcribed for the survey, the results of this study will only be used in my MA thesis.

I would like to thank you in advance for your cooperation.

NüketGündüz

(Supervisor: Dr.Çise Çavuşoğlu)

- 1. What are the benefits of using Moodle in your English courses?
- 2. In what terms has the Moodle made your students successful?
- 3. What are the needed requirements for a teacher who is using Moodle for teaching English?
- 4. Do you believe that school facilities are adequate for the Moodle system to function?
- 5. What are the attitudes of the students about the implementation of the Moodle system?

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