T.R.

CANAKKALE ONSEKIZ MART UNIVERSITY

INSTITUTE OF EDUCATIONAL SCIENCES

DEPARTMENT OF FOREIGN LANGUAGES EDUCATION

ENGLISH LANGUAGE TEACHING

ACQUIRING, PRACTICING, AND RETAINING KNOWLEDGE THROUGH LEARNING AND TEACHING PROCESSES: AN EXPERIMENT OF MOODLE BASED ACADEMIC VOCABULARY ACQUISITION

DOCTORAL THESIS

LEVENT UZUN

CANAKKALE

January, 2014

ACQUIRING, PRACTICING, AND RETAINING KNOWLEDGE THROUGH LEARNING AND TEACHING PROCESSES: AN EXPERIMENT OF MOODLE BASED ACADEMIC VOCABULARY ACQUISITION

A Thesis Submitted to the Institute of Educational Sciences of
Canakkale Onsekiz Mart University

Levent Uzun

In Partial Fulfilment of the Requirements for the Degree of Doctor of Philosophy in the
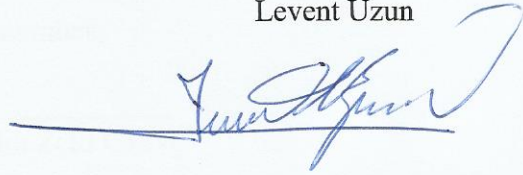**Department of Foreign Languages Education**

January – 2014

UNDERTAKING

I hereby declare that the Doctoral Thesis **"Acquiring, Practicing, and Retaining Knowledge through Learning and Teaching Processes: An Experiment of MOODLE Based Academic Vocabulary Acquisition"** that was written by me, has been prepared in accordance with the scientific ethics and customs, and the sources that I benefitted from have been fully cited in the references.
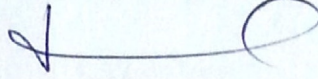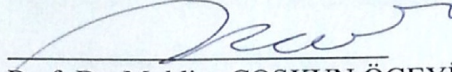
Date

13/01/2013

Levent Uzun

To the Directorate of the Institute of Educational Sciences

The study titled **Acquiring, Practicing, and Retaining Knowledge through Learning and Teaching Processes: An Experiment of MOODLE Based Academic Vocabulary Acquisition** has been approved unanimously by the jury as a Doctoral Thesis in the Foreign Languages Education, English Language Teaching Department.

Prof. Dr. Dinçay KÖKSAL

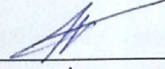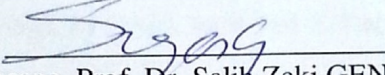(Supervisor)

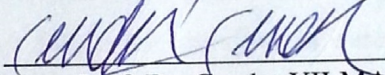Assoc. Prof. Dr. Muhlise COŞKUN ÖGEYİK

(Committee member)

Assoc. Prof. Dr. İlknur SAVAŞKAN

(Committee member)

Assoc. Prof. Dr. Salih Zeki GENÇ
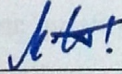
(Committee member)

Assist. Prof. Dr. Cevdet YILMAZ

(Committee member)

Thesis number   : 10024987
Thesis support date : 13.01.2014

APPROVAL

Assoc. Prof. Dr. Ajda KAHVECİ
Director of Institute of Educational Sciences
13/01/2013

ABSTRACT

Acquiring, Practicing, and Retaining Knowledge through Learning and Teaching Processes: An Experiment of MOODLE Based Academic Vocabulary Acquisition

Levent Uzun

Ph.D., Institute of Educational Sciences

Supervisor: Prof. Dr. Dinçay Köksal

January 2014, 303 pages

The present study is a work that penetrates into the basics of educational philosophies and psychology, while focusing on the didactic model 'Learning through Teaching' in an empirical investigation of acquisition and retention of vocabulary from the Academic Word List, facilitated by CALL tools and ICT artefacts.

The study aimed at revealing whether the traditional 'doing exercises' (LtDE) or the unconventional 'preparing exercises' (LtPE) mode helped participants learn and retain more vocabulary knowledge. Additional observations were made related to enjoyment and flow experiences of the learners during the activities, which were technology enhanced and organised in task-based approach that necessitated formative rather than summative evaluation that depends usually on exams. In addition it was aimed to generate new models of education, class(room), and FL vocabulary learning that would be in line with the postmodern philosophies and changing trends and innovations.

The study adopts mixed research methodology by conducting both quantitative and qualitative data throughout the study. A quasi-experimental design with selective and eliminative pre-tests, and comparative post-tests and delayed post-tests was administered to collect the quantitative data whereas questionnaires, interviews, and the diaries of the researcher served as sources of the qualitative information, which enabled triangulation. The tests were prepared and applied by the help of MOODLE software, while the questionnaires were prepared by Google Documents and applied online either through the

official website of the study (www.e-learnlanguage.com) or the weblog (www.leventuzun.wordpress.com) that were used to announce and implement the tasks in the Educational Technologies and Materials Development course in the Faculty of Education, ELT Department at Uludag University, Bursa, Turkey in the 2012-2013 educational year. The participants were forty second-year university students (12 male and 28 female) whose age ranged between 20 and 23. In addition, four ELT professionals who were also consulted throughout the treatment processes participated in the piloting of the instruments.

The results indicated clear advantages of learning by teaching model that was activated through preparing exercises setting. It has been detected that although there was no significant difference in the vocabulary acquisition rate between the control (LtDE) and experiment (LtPE) groups, the experiment group significantly surpassed the control group regarding the vocabulary retention rates. In addition, positive observations were recorded concerning the learners' enjoyment of and attitudes towards digital environments and applications when these also matched their beliefs and expectations.

It has been concluded that non-conventional or postmodern philosophies of education, and learner-centred educational approaches hold serious advantages especially when blended with technology artefacts that need to be exploited more extensively and deeply not only by educators but also by the policy makers in order to meet and satisfy the needs, interests, expectations, and tendencies of the new generation 'digital natives' learners.

Keywords: Educational philosophy and psychology, learning by teaching, academic vocabulary, MOODLE, educational technologies.

ÖZET

Öğrenme ve Öğretme Yöntemleriyle Bilgi Edinimi, Pratik Yapma ve Akılda Tutma: MOODLE Esaslı Akademik Sözcük Öğrenimi Üzerine Bir Çalışma

Levent Uzun

Doktora, Eğitim Bilimleri Enstitüsü

Tez Yöneticisi: Prof. Dr. Dinçay Köksal

Ocak 2014, 303 sayfa

Bu çalışma, Akademik Sözcük Listesinden kelimelerin bilgisayar destekli dil öğrenme araçları ve bilgi ve iletişim teknolojileri aracılığıyla öğrenilip akılda tutulmasını deneysel bir çalışmayla inceleyerek; öğretici bir model olan 'Öğreterek Öğrenme' yöntemine odaklanan, eğitim felsefeleri ve psikolojisi alanlarını derinlemesine inceleyen bir araştırmadır.

Çalışma, geleneksel 'alıştırma yapma/çözme' (AYÖ) ile alışılmamış 'alıştırma hazırlama/tasarlama' (AHÖ) usullerinden hangisinin sözcük öğrenimi ve akılda tutulması bakımlarından öğrencilere daha fazla katkı sağladığını ortaya çıkarmayı amaçlamıştır. Buna ilave olarak, teknolojiyle pekiştirilmiş fakat sınavlara dayanan sonuca odaklı yaklaşım yerine görev odaklı ve süreci değerlendiren yaklaşım etrafında organize edilmiş aktiviteler süresince öğrencilerin hoşlanma-eğlenme ve kendilerini iyi hissetme (psikolojideki 'flow' tecrübesi- yüksek seviyede ve uzun süreli motivasyon ile katılım) durumlarına odaklı gözlemler yapılmıştır. Ayrıca, postmodern felsefelerle ve değişen eğilim ile yeniliklerle uyumlu olabilecek yeni eğitim, sınıf ve yabancı dil öğrenme modelleri ortaya koymak da amaçlanmıştır.

Araştırma, çalışma süresince hem nicel hem de nitel veri toplanması bakımından birleşik araştırma yöntemini kullanmıştır. Nicel verilerin toplanmasında eleyici ön testler ve karşılaştırıcı son testler ile ertelemeli son testler yarı deneysel bir tasarım içerisinde kullanılırken; çapraz denetleme (karşılıklı ilişki izleme ve üçgenleme) sağlayan nitel bilgilerin toplanmasında anketler, röportajlar ve araştırmacının günlükleri kaynaklık

etmiştir. Testler MOODLE yazılımı yardımıyla yapılıp uygulanırken; anketler Google Dokümanlar yardımıyla hazırlanarak çevrimiçi olarak ya çalışmanın resmi web sitesi (www.e-learnlanguage.com) üzerinden veya 2012-2013 öğretim yılında araştırmacı tarafından Uludağ Üniversitesi, Eğitim Fakültesi, İngiliz Dili Eğitimi Bölümünde Eğitim Teknolojileri ve Materyal Tasarımı dersinin görevlerinin duyurulduğu ve yürütüldüğü web bloğu (www.leventuzun.wordpress.com) aracılığı ile uygulanmıştır. Katılımcılar, yaşları 20 ile 23 arasında olan kırk (12 bay 28 bayan) üniversite ikinci sınıf öğrencisidir. Ayrıca, çalışmanın uygulama safhalarında kendileriyle istişare edilen ve veri toplama araçları yapımının pilot çalışmasında yer alan dört İngiliz Dili Öğretimi uzmanıdır.

Sonuçlar, alıştırma hazırlama ortamı ile yürütülen öğreterek öğrenme modeli lehine net avantajlar ortaya koymuştur. Kontrol grubu (AYÖ) ile deney grubu (AHÖ) arasında sözcük edinimi oranları bakımından önemli bir fark tespit edilmemekle birlikte, deney grubunun kontrol grubunu sözcük bilgisinin akılda tutulma oranı bakımından önemli bir oranda geride bıraktığı görülmüştür. İlave olarak, dijital ortam ve uygulamalar konusunda kendilerini iyi hissetmeleri ve eğlenmeleri bakımından, inanç ve beklentileriyle örtüştüğü zaman öğrencilerde olumlu gözlemler kayıt edilmiştir.

Alışılagelmemiş veya postmodern eğitim felsefelerinin ve öğrenci merkezli eğitim yaklaşımlarının, özellikle teknoloji araçları ile harmanlandığında, ciddi avantajlar barındırıp sundukları ve 'dijital yerliler' olarak tabir edilen yeni nesil öğrenenlerin ihtiyaç, ilgi, beklenti ve eğilimlerini karşılamak ve onları tatmin etmek için bunların sadece eğitmenler tarafından değil, aynı zamanda eğitim politikalarına yön verenler tarafından daha yoğun ve derinlemesine istifade edilmesi gerektiği sonucuna varılmıştır.

Anahtar Kelimeler: Eğitim felsefesi ve psikolojisi, öğreterek öğrenme, akademik sözcük, MOODLE, eğitim teknolojileri.

ACKNOWLEDGEMENTS

I would like to express my appreciation, first and foremost, to my supervisor Prof. Dr. Dinçay Köksal, who opened the most important door for me during my pursuit of scholarship, and enabled my academic life to progress. I owe many thanks for his supports, tolerance, and encouragements during my PhD studies. My thanks also go to all the instructors and lecturers that have helped and guided me at Canakkale Onsekiz Mart University for their inspirational lectures in class, by which I have been motivated to delve into some important issues through critical and creative thinking. I am also grateful for the constructive comments, criticisms and advice of the professors in my inspecting committee who helped me in the refinement of the dissertation.

I am extremely obliged to my students who participated in the current study and a number of friends at Uludag University and abroad, without whose positive contributions, accomplishing this study would be impossible. I owe a debt of thanks to everyone who has been a good companion over the past few years when I worked on my dissertation and who always encouraged me to strive and finish this work on time. Additional gratitude should be expressed to Dr. Abdullah Can who offered me his valuable assistance with the statistical analyses of the data, and another friend, Philip Smith, for his support in the proofreading of the work.

Last but not least, I would like to give my immense gratitude to my mother who has been my first and greatest teacher and supporter in life, and to my wife without whose understanding my dream of pursuing further study in this field would not have been possible.

CONTENTS

CHAPTER I

INTRODUCTION

CHAPTER II

LITERATURE REVIEW

CHAPTER III

METHODOLOGY

CHAPTER IV

RESULTS AND DISCUSSION

CHAPTER V

PEDAGOGICAL IMPLICATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

CHAPTER VI

CONCLUSION

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

AWL: academic words list

CALL: computer assisted/aided language learning

CEFR: common European framework of reference for languages

CEQ: course evaluation questionnaire

CMS: course management system

CPAVK: controlled productive academic vocabulary knowledge

CRAVK: controlled receptive academic vocabulary knowledge

DIFprod: difference of post-test and delayed post-test productive items scores

DIFrec: difference of post-test and delayed post-test receptive items scores

DIFtotal: difference of post-test and delayed post-test totals items scores

DPT: delayed post-test

DPTprod: delayed post-test productive

DPTrec: delayed post-test receptive

DPTtotal: delayed post-tests summative total

ECTS: European credit transfer and accumulation system

EFL: English as a Foreign Language

EL: English language

eLL: e-learnlanguage Moodle site

ELT: English language teaching

ETMD: Educational Technologies and Materials Development

FL: foreign language

FLL/T: foreign language learning and/or teaching

GDs: Google Documents

GEQ: general evaluation questionnaire

GSL: General Service List

ICT: information and communication technologies

KPDS: Foreign Language Proficiency Examination for State Employees

LdL: Lernen durch lehren- Learning through/by teaching

LDOCE: Longman English Dictionary Online

LMS: learning management system

LtDE: learning through doing exercises

LtPE: learning through preparing exercises

MA: Masters

MFF: most frequent form

MOODLE: Modular Object Oriented Dynamic Learning Environment

MQ: motivation questionnaire

ÖSS: Student Selection Test

ÖSYM: Student Selection and Placement System

PC: personal computer

PPSS: PowerPoint slide show

PT: post-test

PTprodtotal: post-tests productive score totals

PTrectotal: post-tests receptive score totals

PTtotal: post-tests summative total scores

SEQ: self-evaluation questionnaire

SPSS: statistical package for the social sciences

TESOL: teaching English to speakers of other languages

T/CBL: technology/computer based learning

TOEFL IBT: Internet-based test of English as a foreign language

UWL: University Word List

VLE: virtual learning environment

VL/TM: vocabulary learning and/or teaching methods

WPWB: WordPress weblog

YÖK: The Council of Higher Education

CHAPTER 1

Introduction

"If you want to learn something, teach it to someone."[1] Throughout my educational life, and especially during my professional life as a teacher, I have noticed that I have learnt more and better when I have been personally and actively in charge of cognitive action and in command of speech or lecturing. The Roman Stoic philosopher Seneca has been quoted for his letters to Lucilius[2], where he expressed that "(docendo discimus- Latin) by teaching, we learn", which is the motto of many institutions today. Likewise, Vygotsky's (1962) *Thought and Language* actually explored the same idea that delved into the relationships between speech and development of mental concepts and cognitive awareness, which also provided a theoretical rationale for the idea, namely "The one who does the talking, does the learning."[3]

Great minds think alike. It must be that common awareness, experiences, or observations that shed light on the significance of "learning by doing". Here "doing" refers to practical action which requires the involved person(s) to be actively on the stage and playing the leading role in the spotlight. The literature in the fields of philosophy, psychology, and education has accumulated a significant amount of support for this idea. The pragmatist philosopher John Dewey, for instance, centred his educational theories around the method of learning by doing[4]. According to him critical thinking was more important than memorisation of parts of information. Therefore, being active rather than passive "doer(s)" at every stage of an action has often been encouraged and favoured by authorities and educators (e.g. Schank et al., 1983). Besides the academic bodies that support the idea of practice over theory in education, there are wise words and proverbs that underline the essential importance of knowing "how to" do something rather than just knowing something, such as the Chinese proverb that advises: "Give me a fish and I eat for a day. Teach me to fish and I eat for a lifetime."[5] This implies that not only practising of theoretical knowledge, but also knowing how and where to use the existing knowledge and/or skills, is necessary and important. In other words, the autonomy that is given to free individuals in their endeavours should be valued and expressed.

---

[1] http://e-ducation.net/vygotsky_english.htm
[2] http://www.encyclo.co.uk/define/Docendo%20Discimus
[3] http://www.newworldencyclopedia.org/entry/Lev_Vygotsky
[4] http://www.pbs.org/onlyateacher/john.html
[5] http://www3.telus.net/linguisticsissues/quotes.HTM

Nevertheless, the "modern" approaches to education usually identify an authority, which is usually a teacher over students, program developers over educators, or policy makers over program developers, etc. These top-down approaches of modern understandings create authorities which usually pose some limitations or difficulties for the stakeholders at the bottom. Cicero criticised this as follows: "The authority of those who want to teach is often an obstacle to those who want to learn."[6] Therefore, it was not nonsense or coincidence that Ivan Illich (1971) published *Deschooling Society*. He was followed by Harold Bennett (1972) who published *No More Public School*, and John Holt (1977, 1981) who introduced *Growing Without Schooling* as well as *Teach Your Own*, respectively. The supporters of this approach to education received criticism for being somehow too utopian or idealistic at some parts. Nevertheless, one of the most respected scientific figures of all times, Albert Einstein, was also brave enough to comment, as in the following: "The only thing that interferes with my learning is my education."[7]

Although the proposed opinions might be interpreted as being far ahead of their time, and thus somehow unintentionally misunderstood or not well comprehended, even today it is possible that they might receive much criticism. However, today things have changed significantly in such a way that with closer and more careful investigation of the matter they can be understood to a reasonable extent, at least. Both philosophical tendencies and technological developments have progressed. So, the conditions that were dreamt of by some people long ago are not dreams any longer. The reality is that the dreams of the past are the reality of today, but today we have dreams, too. For all that, as long as we have the chance to realise the dreams, we should not ignore them, for dreams are to be realised. Therefore, prior to discussing technical matters in education such as methodologies, techniques, course books, materials, etc., it seems that there is an absolute need to set and identify solid philosophies, which will also establish close connections with the findings and theories of psychology. Additionally, there is a need to notice and follow the innovations, trends, and tendencies to meet and satisfy learners' needs, first of all, because in my opinion, learning itself is an individual action which is unstoppable in nature whether teachers or schools exist or not. This, however, should not be interpreted as the idea that persons learn better on their own, but as the idea that they learn on their own, too.

---

[6] http://www.historyguide.org/teach.html
[7] http://www.quoteworld.org/quotes/4188

The postmodern philosophies and approaches to education seem to provide the flexibility, tolerance, and autonomy that is necessary in the current age of technology and globalisation. If we admit and accept that time is a phenomenon that passes so quickly together with all the substances within it, there will be no other option than to realise that the only unchangeable thing is the change itself. Therefore teaching methodologies, learning strategies, educational materials and equipment, learner and teacher profiles, physical conditions, philosophies and approaches are bound to change, a fact which urges quick and simultaneous action, not only in education but also in all fields of action, in order to update and upload the optimum and most appropriate or desired applications and related implications.

Notwithstanding efforts for progress, it seems that much in the total understanding of educational environments remains static to a great extent, beginning from the philosophies, approaches, testing tools and procedures, educational materials and techniques, etc. It would be also possible to comment that although physical conditions and people profiles have that tendency which will lead the world towards a postmodern era, there is some kind of resistance coming from that static understanding that forces everything to be stuck in the age of the modern. In the light of the discussions specified above, it would be hard to suggest that the current state of education in the world is at an optimum level of flexibility or in a position of meeting the needs and interests of the learners of the digital age that we are actually in, and that it follows the updates and improvements in technology and globalisation (at least this is the case in Turkey, if not all over the world). There is an absolute need for careful revision and restructuring of educational philosophies, approaches, policies, methods, techniques, materials, etc. to take the utmost possible advantage of the available facilities in hand.

When discussing education in Turkey, one would clearly observe that the classrooms carry on the very understandings and applications of modern approaches, where the teacher is the authority and the students are the obedient characters that try to satisfy the teacher. When specifically focusing on foreign language (FL) education, the case is that there are fixed programmes that are usually realised under formal rules and in formal settings with predetermined bodies (as teachers) and materials. Moreover, the assessment and evaluation tendencies urge learners to strictly follow these procedures in order to meet the standards and prerequisites of the system. In other words, the educational philosophies and

approaches work in favour of the system itself rather than of the learners. FL teachers strictly follow their curriculums and books in order to keep up with the deadlines in the calendar. The interests and skills of the learners as well as their intelligence types are majorly ignored since the crowded populations hardly allow for needs analyses and individualised treatment. Therefore, by ignoring the individual needs, interests, and skills of the learners, the current educational system in Turkey tends to see the classrooms as a "big single body" that is homogenous in all its characteristics, and thus, the same content can be delivered, in the same way, and under the same conditions regardless of who the addressees are, where they are and why they are there. Formal settings are usually integrated in physical buildings where most of the educational actions are operated from the morning to the evening during week days. The education is limited and bound to these buildings, the educators that work in these buildings, and the equipment that is found in these buildings. Moreover, these buildings run fixed programs that have their fixed agendas which have to be followed and adhered to not only by the learners but also by everyone in these buildings.

Nevertheless, the improvements and innovations in technology as well as the postmodernist philosophies allow for and create conditions that may help in moving the educational operations to a further and upgraded level. Education does not need to be limited and bound to the elements specified above. Furthermore, there is opportunity for both learners and teachers to extend their practices beyond the traditional procedures and materials. Individualised learning and assessment steps can be developed and smoothly applied regardless of the size of the populations. Today, the Internet is a powerful source that is supported by many types of facilities and equipment such as software, computers (e.g. laptops, desktops, netbooks, tablet PCs), mobile phones, smart TVs, etc. All of these provide huge and rich input sources as well as multifarious and composite contents that are not created or developed by single sources, and therefore, not limited to local knowledge, culture, perspectives, etc. The current state of the world, more than ever before, allows teachers to evaluate the processes in education rather than just the products. However, it seems that there is much need for transformation in the philosophies and standpoints of all parties that are involved in education, beginning from the learners, parents, educators, and managing and political authorities, in order to create and benefit from the conditions that the world of technology has already tendered.

The purpose of this study is twofold. First, to raise awareness of the postmodern understanding and to point out the necessity of adopting appropriate philosophies on which educational approaches, methodologies and techniques in foreign language learning and/or teaching (FLL/T) should be built, with additional support from the field of psychology, as this is central to human nature and to the motivation factor. Second, to demonstrate an example of an innovative FLL/T experiment that contains the principles of autonomous lifelong learning and distance education, while also generating new models of education, class(room), and FL learning. The present study establishes close connections among the theoretical backgrounds of the areas of philosophy, psychology, and education, and constructs a model FLL/T application, which demonstrates promising evidence and observations for further research. In the following chapter, the researcher will discuss some basic issues in the philosophy of education with specific focus on the postmodern philosophies of names such as Paulo Freire, Jean-François Lyotard, Jacques Derrida, and Michel Foucault. The researcher will also provide evidence from educational psychology, and from the flow theory of Mihaly Csikszentmihalyi (1990) that will be in line with the arguments presented about the philosophical stance; and last but not least, the researcher will examine the literature on FLL/T to discuss the practicality of a neglected FLL/T method of Jean Pol Martin (1985), namely Lernen durch Lehren- Learning through/by teaching (LdL). The researcher will also touch on the field of educational technologies and computer assisted language learning in order to take the discussions further with concrete evidence and experiences. Thereby, the researcher will attempt to establish a triangular structure (philosophy-psychology-education) of the study in the literature review.

1.1. Research Problem

The humanistic philosophies and postmodern approaches to education stress the importance and value of developing full autonomy and satisfaction of human beings. This implies that every individual deserves to be supported with the opportunities to receive input and context in favour of personal interest, and also to proceed in the way he/she would enjoy.

Nevertheless, traditional educational programmes and settings are far from being customisable, and thus fail to provide flexible learning environments. Likewise, EFL education designed by the Ministry of Education in Turkey suffers from fixed procedures

and packages. Learners are forced to deal with extrinsically preconditioned and set contents and procedures. Therefore, it seems that any attempt to rearrange the existing stereotyped conditions in any area of education might be useful in creating more flexible and improved education that will better meet the interests of the learners and satisfy their needs. Moreover, it would be hard to suggest that studies in FL education touch on the field of philosophy as the base for all ideas and areas, or that they take into account the valuable principles and findings of the psychology field, besides which they would integrate the specific topics of the FL field. Therefore, there is a need to look from a broader perspective even when dealing with or researching local problems of specific areas of study.

More specifically, vocabulary acquisition has often been regarded as being probably the most basic and important step in FL learning (e.g. Gass and Selinker, 2008, p. 449). Additionally, there have been inspirations and suggestions which claim that better and more long-lasting learning would occur if learners were directly involved in the teaching process, that is, in preparing the learning and testing materials, and in taking on the responsibilities and authority of the teachers sometimes, matters which deserve closer investigation (e.g. Grzega, 2006). Moreover, the latest technological facilities, innovative ideas, and postmodern approaches make it possible for the previously mentioned two issues to be combined, tracked, and examined easily. So, considering the principles of distance, lifelong, online, autonomous etc. learning, it might be interesting to investigate whether 'guided' or 'self-regulated' tasks and activities create more productive results in relation to EFL vocabulary acquisition through CALL applications, while also investigating flow principles and motivation.

Therefore, the present study first seeks to set and establish, and then to reveal the degree of efficiency of two approaches, traditional versus postmodern, in FL vocabulary learning and to observe the acquisition and retention level, which will all be grounded on the conditions of the postmodern to the extent that is possible within the structure of the study, both practically and theoretically. In other words, it aims at comparing the effect of traditional 'learning through doing exercises (LtDE)' and 'learning through preparing exercises with the purpose of teaching them (LtPE)', which the researcher would call and suggest to be postmodern. Furthermore, the study investigates the motivation of the

participants within the scope of flow principles in order to determine the implicit reasons for the explicit results of the study.

This will be carried out in the light of the three main fields of study, philosophy, psychology, and education, and more specifically, by exploiting their aspects, Postmodernism, the Flow Theory, and Learning by/through Teaching Method (LdL), respectively; while also attending to learner beliefs and attitudes with regard to the current age of communication and information technologies (ICT) and their use in education.

1.2. Purpose of the Study

The specific purpose of the study is two-fold. First, to determine and compare the vocabulary acquisition and retention rates obtained through the two methods, namely the traditional LtDE and postmodern LtPE, particularly in the acquisition and retention of vocabulary from the AWL. Second, in order to determine the motivation and flow, to collect and evaluate teacher trainees' beliefs, opinions, and attitudes related to using technology in education, and the employment of postmodern, student-centred, learning/teaching methods in FL education such as LtPE, and of exam-free procedures in evaluation and assessment.

The study intends to adopt a postmodern approach and to question the traditional applications of formal education, while also examining the satisfaction and success levels of the participants who will act within the frames of nonconventional learning environments and methods. It is claimed that the use of technology in education will increase the interest and motivation of the new age learners- "digital natives", and in return, will create improved results. Therefore, it seems a good opportunity to employ the facilities offered by MOODLE in implementing the LdL Method by which not only student-centred and autonomous conditions will be laid down but also the Flow Theory will be tested. The LdL Method suggests that converting the focus from teachers to learners will create a higher quality educational environment with better learning gains, a proposition that is in accordance with the Flow Theory which explains that the emotions are not just contained and channelled, but positive, energized, and aligned with the task in hand. So, suitable and well organised tasks should create positive flow and intrinsic motivation, which should be doubled with the use of technology, that is, computers and the Internet in the present study. In sum, the foreseen structure and implementations will

require a postmodern understanding and applications in the philosophy, methodologies, and approaches of the course. Certain vocabulary from the AWL will be presented to the teacher trainees, and they will be asked to deal with these words in either a traditional or a postmodern way. In the end, the vocabulary acquisition and retention rates, and satisfaction level of the participants will be analysed and evaluated.

1.3. Importance of the Study

The thesis would cultivate useful information and data related to the implementation of non-traditional educational approaches to learning, while revealing the beliefs, opinions and attitudes of the participants related to using technology in education and employing student-centred, autonomous methodologies, and exam-free evaluation and assessment systems in education. The study would reveal supportive or critical findings that will be of interest to and in accordance with the literature of the LdL model, Flow Theory, and postmodern philosophies. Results would shed light on FL education and be useful not only for FL teachers and learners but also for the educators and learners in all fields of study. Additionally, these might have implications for curriculum or programme design and materials development.

1.4. Limitations of the Study

The present study was carried out with a limited number of students, and within limited physical environments and time periods that were regulated and affected by formal educational conditions. As also stated by the participants during the interviews, the computers were not enough in quantity and also the Internet connection was very problematic at times. Additionally, it might be better to have two separate classes of forty persons, or even better, four separate classes of twenty persons, so that completely different methodologies, approaches, and materials could be used in the experimental and control groups. However, in the present study there was just one group, which was divided virtually into two groups, but the materials and techniques were same for both most of the time. One might criticise the fact that since the groups were not isolated, they might have affected each other, and thus, the results of the study. This postulation might be true to an extent but in social sciences there are hardly any examples that create solid and "science-

like" results that are revealed through positivistic and objective laboratory conditions. When the matter is about dealing with social and interactive creatures such as human beings, there is always some serious risk of extrinsic influence or effect. Notwithstanding the valid argument about the grouping and techniques used in the study, the researcher paid extra attention to creating the conditions that would help in keeping the alliance effect at a minimum, by giving individual feedback and instruction to the participants, and by controlling the work of the students rigorously throughout the course period.

Additionally, the researcher was in close and continuous contact with the participants in order to assure that the participants took all the tasks and activities seriously, and to create the conditions that would urge students to work individually or autonomously for their own sakes. They were often advised and reminded that the things they would learn would be only for their advantage and with the intention they behave responsibly and willingly about their education. Moreover, they knew very well that there was no room for anxiety or fear of failure if they followed the instructions and completed the tasks weekly.

The evaluation and assessment approach of the study might be another point to criticise, since there were no exams, but tasks instead, which were allowed to be accomplished either in the classroom or at home. The completed tasks of the week were awarded the declared points regardless of the timeline, manner, place, substance, etc. of completion, as long as these were contended to be original and unique, after the control of the researcher. One might speculate as to whether even the controls for uniqueness and originality were assured; these tasks might have been completed by the help of other bodies, or completely done by others. This postulation might be true, but once again it would be sensible to remember that examinations and tests themselves have many weaknesses related to validity and reliability issues, meaning that it would be hard to accept their objectivity at times. Therefore, similar weaknesses of objectivity might be tolerated to a certain degree within the scope of the current study. Nevertheless, the researcher very closely and frankly approached the forty participants throughout the study, and was satisfied, with a high level of affirmation, with the probability that students could complete the tasks themselves, and that they actually did so. Moreover, the tasks were arranged in such a way that there was no need for help from outside since some tasks were very personal, such as registering for a Gmail account and for the e-learnlanguage website; completing the post-tests; taking the questionnaires and quizzes prepared by the researcher,

etc. Furthermore, during the activities in the classroom, my observations were always positive about the abilities and motivation of the students to be willing and able to do the tasks themselves, such as preparing questionnaires and posting these in their Facebook accounts, preparing quizzes in MS Word and PowerPoint, creating their weblogs and developing these, registering for a free web hosting and installing Moodle, etc. Additionally, these were more or less technical issues that the students of the present classes, or only the especially interested ones, would know about; and if the students on the course attempted to help one another it would cause no harm because they helped one another during the activities in the classroom as well. However, while students in one group had to complete the online quizzes that were prepared by the researcher, the participants in the other group had to prepare quizzes themselves. Therefore, students in both groups had enough to do, and helping others would require them to work much more and spend additional energy. As mentioned before, the researcher did not sense these kinds of actions at all in his personal observations. Consequently, not all students graduated with marks of 100 (the marks of the students ranged between 52 and 100), which also indicates that the students were independent and responsible for learning, and not working for passing the course or simply for getting a high mark.

1.5. Research Questions

1. Is there any difference in the total vocabulary 'acquisition' rate between the participants in the control (LtDE) and experiment (LtPE) groups?

a) Is there any difference in the correctly done items in the receptive items of the post-tests between the groups?

b) Is there any difference in the correctly done items in the productive items of the post-tests between the groups?

c) Is there any statistical significance in the total scores of the control and experiment groups in the post-tests between the groups?

2. Is there any difference in the total delayed post-test results of the participants in the control (LtDE) and experiment (LtPE) groups?

a) Is there any difference in the correctly done items in the receptive items of the delayed post-tests between the groups?

b) Is there any difference in the correctly done items in the productive items of the delayed post-tests between the groups?

c) Is there any statistical significance in the total scores of the control and experiment groups in the delayed post-tests between the groups?

3. Is there any difference in the total vocabulary 'retention' rate between the participants in the control (LtDE) and experiment (LtPE) groups?

a) Is there any statistical significance in the difference in the receptive items of the post-tests and delayed post-tests between the groups?

b) Is there any statistical significance in the difference in the productive items of the post-tests and delayed post-tests between the groups?

c) Is there any statistical significance in the difference in the totals of the post-tests and delayed post-tests between the groups?

4. Is there any positive attitude towards the exam-free formative evaluation that will depend on the assessment of weekly tasks?

5. Does the use of technology and online and autonomous principles positively affect the motivation of the students?

6. Do the opinions and beliefs of the participants related to the importance of specific topics, contents, and elements in FL education, affect the flow state during the activities?

1.6. Hypotheses

1. If the participants who are in the LtDE group take the tests after treatment then:

a) they will be more successful in the receptive items of the PTs.

b) they will be more successful in the productive items of the PTs.

c) they will 'acquire' more vocabulary in total (according to the post-test results).

2. If the participants in the LtPE group take the tests after treatment then:

a) they will be more successful in the receptive items of the DPTs.

b) they will be more successful in the productive items of the DPTs.

c) they will score higher in total (according to the delayed post-test results).

3. If the total scores in the post-tests be extracted from the total scores in the delayed post-tests, and compared between one another, there will be higher vocabulary:

a) acquisition in advantage of the LtDE group.

b) retention in advantage of the LtPE group.

4. The anxiety and fears of failure will be reduced by the exam-free formative evaluation that will depend on the assessment of weekly tasks.

5. The use of technology and principles of online and autonomous education will positively affect the motivation of the teacher trainees.

6. The opinions and beliefs of the participants related to the importance of specific topics, contents, and elements in FL education will affect the flow state during the activities.

Within the context of the current study, the terms FL (foreign language), SL (second language), and L2 will be interchangeably used and refer to the language(s) that are different from the first language (L1) or mother/native language of the user. Additionally, learning and acquisition will be used interchangeably to refer to the adoption and/or absorption of new information and/or knowledge.

CHAPTER 2

Literature Review

The following part provides a review of the literature related to philosophical, psychological, and pedagogical aspects of the study. This chapter consists of three main sections. Section 2.1 provides information about the philosophical background and matters, Section 2.2 discusses the psychological aspects, and Section 2.3 presents examples and explanations related to educational problems, with specific focus on FL education.

2.1. Philosophical Background

Why does the researcher touch on the philosophy field as a basis of the present study? First of all, it would be helpful to understand how certain actions arise and develop by reviewing the thoughts and constructions behind these. Second, it would be useful to develop empathy related to different views about the world, and how these work for people. Third, it would be a good idea to explain the recent philosophical movements in order to establish a rational connection between the approach of the current study and the unconventional educational practices in traditional educational settings. Two major topics should be reviewed while discussing the philosophies of and approaches to education. The first one is the ongoing paradigm wars of the *positivistic* and *naturalistic* worlds, which might be closely associated with the *quantitative* and *qualitative* understandings respectively. The second one is the other similar war that has arisen between the *modern* and the *postmodern*, which are concepts that have not been well defined or described yet, particularly the postmodern, but the approaches, contents, and applications of which are usually recognised to conflict or differ.

Everything begins with a philosophy. This Greek word (*philosophia*) literally means "love of knowledge, pursuit of wisdom; systematic investigation"[8], but is definitely related to more than that as defined in the following:

"Philosophy is a study of problems which are ultimate, abstract and very general. These problems are concerned with the nature of existence, knowledge, morality, reason and human purpose." (Teichmann and Evans,

---

[8] http://www.etymonline.com/index.php?allowed_in_frame=0&search=philosophy&searchmode=none

1999, p.1) "The aim of philosophical inquiry is to gain insight into questions about knowledge, truth, reason, reality, meaning, mind, and value." (Grayling, 1998, p.1)

Therefore, philosophy is not only an abstract cognition but also the very essential step that triggers human actions. Every conscious and intellectual movement should be the result of a philosophy. Otherwise, it would be possible to characterise it just as an imitation or a poor behaviour that lacks depth and background purpose. That is why it is of utmost importance to be aware of and to comprehend the relationship between philosophy and social sciences that leads to these concrete concepts we know, learn, or speak about at school, and also activities we apply throughout our professional lives. Winch (1958, p. 3) asserted that any worthwhile study should be philosophical in nature, and of course be for the sake of human society. And indeed, when carefully investigated, it would be possible to state that every widespread action and/or application, from the very beginning of history, has been the result of a philosophy. Before discussing some modern philosophers such as John Locke, Immanuel Kant, John Dewey, Jean Piaget, etc. who have had very influential roles, particularly in the educational world, and some contemporary philosophers such as Jean-François Lyotard, Michel Foucault, Jacques Derrida, etc. who might be regarded as significant names that introduced poststructuralism and postmodernism, it would be helpful to explore the views of two ancient philosophers, Plato and Aristotle, as the milestones that most dilemmas of today can be based on. These two philosophers, among others, are distinctive because, as the researcher understands it, their ideas form the backbone of the philosophical infrastructure of the current intellectually bipolar world. By speculating about the bipolarity of the world, my rationale is 1. the characteristics of the physical world as in the distribution of water and soil; in the spaces of ground and sky; in the time frames such as day and night, etc., and the features of human nature as in genders, namely male and female; in emotional and intellectual possessions, namely feelings and thought; in the states such as body and soul, etc., and 2. the dualism in the views of the academic and scientific environments as in the positivistic and naturalistic perspectives; in the perception and processing of data as quantitative and qualitative; in the numerous dichotomies such as teaching and learning, student and teacher, etc. Inevitably, the world is innately bipolar from every aspect. Accordingly, one might notice that while the duality in the first item results from the natural endowments, which actually add harmonious opulence and assortment to the existence of the world, in the second item the

reason is the manipulation of mankind that created some kind of hierarchy and authority, which has resulted in never ending conflicts. In view of the above, although the researcher is not going to discuss the natural endowments or the creations of God mentioned in the first item, the researcher will try to provide sensible explanations for how the duality alleged in the second item might stem from the previously named two philosophers, with particular stress on philosophy of and approaches to education.

2.1.1. Philosophy of Education

Noddings (1995, pp. 1-6) described that philosophy of education is a field of applied philosophy that addresses questions concerning the aim of education, pedagogy, educational policy, curriculum development, and the process of learning. The importance of educational philosophy has also been emphasised by Vasillopulos (2011) who indicated that practical objectives of educators may be achieved more easily and efficiently when they are grounded in philosophy. Uzun (2012b) postulated "What is my educational philosophy" as the key question that not only FL teachers but also every educator should ask himself/herself as a prerequisite of being a conscious practitioner. However, in reference to my personal observations, most teachers and teacher trainers either do not know much about the philosophies at hand or are not very conscious with regard to what these philosophies are all about and how they underlie the present educational policies and applications. Similarly, Arcilla (2002) remarked that the educational community does not seem to care about philosophy (p.1). Thus, it would be hard to comment that most educators are deliberative practitioners. The researcher would postulate that this results in memorisation and imitation of previously shaped and ready-to-use forms of educational applications and their related issues, without being aware of the originating ideas behind these. Biesta (2010) stressed that philosophy of education should ask educational questions about education rather than philosophical; otherwise, it might be very difficult for others in the field of education to discern the relevance and significance of such questions (p.2). Likewise, Mayo (2011) maintained that philosophers of education should ask questions that that will necessitate institutions to resituate and restructure their activities around vital matters related to knowledge, ethics, sustainable education, etc. (p.2). In addition, Hayden (2012) propounded that the questions that philosophers of education ask are significant for both educators and educational establishments. Furthermore, according to Wilson (2003)

education should be seen as a subject of inquiry in philosophy. Therefore, the researcher believes that improving awareness of educational philosophies may help teachers to become more efficient professionals. For this reason, scrutinising Plato's *Idealism* and Aristotle's *Realism* would be a good starting point.

2.1.2. Positivistic versus Naturalistic Philosophies of Education

The inquiry that has emerged from the curiosity about who we are and what exists, and the relation between these has involved human beings in deep thinking about "reality". In this sense, two opposing opinions (positivistic and naturalistic views) about reality have evolved. These two views are directly related to *epistemology* (the theory of knowledge) and *ontology* (the metaphysical science or study of being), and are responsible for the educational implementations of ontological and epistemological issues. Epistemological matters are very much relevant to education because what is accomplished through education is transmission and processing of knowledge. Likewise, ontological matters are directly relevant since knowledge would be meaningless without human existence, especially from the educational point of view. That is to say, what is worth knowing, when and from what sources and how to know have been just a few of the concerns of philosophers, psychologists, and educators in relation to educational applications. My suggestion for studying Plato and Aristotle contrastively would be sensible because, to my knowledge and comprehension, while Plato's Idealism seems to be mostly on the naturalistic (note that the naturalistic view should not be confused with naturalism, which is a philosophy that is closer to positivism) side of the sphere, Aristotle's Realism seems to be overwhelmingly on the positivistic side. Moreover, while the naturalistic line of vision seems to prefer and pay regard to *qualitative* investigations, the positivistic standpoint seems to regard *quantitative* analyses most of the time. This, however, should not mean that there will always and necessarily be one to one correspondence between Plato, naturalistic philosophy, and the qualitative approach to investigation; and Aristotle, the positivistic view, and quantitative analyses. Even so, the researcher presumes that the substantial bipolarity that exists almost in everything created by mankind can be well observed in the ideas of Plato and Aristotle, and can be directly associated with the general *paradigm wars* initiated by the minds of the two spheres. According to Oakley (1999), although there is not a clear sign related to when this epistemological battle began, the

scientific literature shows that the conflicts were initiated before the 1960s (see further: Patton, 2002; Teddlie and Tashakkori, 2009). This would also mean that it was when the qualitative tendency in social sciences appeared among the scholars, as before that date the quantitative approach was overwhelmingly dominant and went hand in hand with behaviourism (e.g. Hothersall, 1995; Johnson and Christensen, 2008; Alise and Tedlie, 2010).

Views about existence and reality vary. Whether socially constructed or not, which has been one of the hot topics of discussion in the twenty-first century, while some believe that reality is within us and can be understood only by in-depth investigation of the feelings, others hold the view that reality is external to us and can be directly observed and/or measured through behaviours or concrete evidence. These two views of the world lead to different paradigms (patterns or models) in action, which also vary in the methodologies employed while investigating matters. The term "paradigm wars" refers to the ontological and epistemological debates between those who possess different views related to a specific problem, aim, or action. Guba and Lincoln (2005) stated that philosophically based paradigms are the ways of perceiving and pondering that underlie specific research methods. The sides of this war might be the "purists", "situationalists", and "pragmatists" (Dörnyei, 2011, pp. 29-30), or the "positivists", "interpretivists", and "critical theorists" (Anderson and Herr, 1999), or the "technologists", "social pragmatists", and "critical analysts" (Chapelle, 2003, pp. 1-9), or even the "teachers", "students", and "parents", etc. (Uzun, 2012b) depending on the subject matter or the field of action. In essence, educational philosophy seems to be affected by beliefs about what exists and what is known or worth knowing, and these beliefs seem to determine the paradigm through which the entire process is understood and held. Dörnyei (2011) informed us that the matter was between "statistics" and "researcher sensitivity", or "callous" versus "sensitive", or "systematic" versus "fuzzy", and ultimately between "objective" and "subjective" (pp. 27-28), implying the quantitative style by the first term in each pair, and qualitative by the second term. That is why the philosophical stance and perception is important and responsible for every deliberate action and evaluation in any field and certainly in education.

2.1.2.1. Educational Idealism and Educational Realism

According to Plato (Republic, 518e), reality and the ability to know are always within individuals, but each member of society should be trained in such a direction that this ability would be improved and focused on pure truth (Cooper and Hutchinson, 1997). What was stressed by Plato is that anyone has the potential to realise, comprehend, and know the "big picture", and the essential task of education is to teach or help people to use their existing capacity for knowledge rather than to give them chunks of information, rules, or formulas to keep in mind. This is a very humanistic philosophy that not only respects each person and identity but also implies the equity of the intellectual capacity of all human beings. Plato's philosophy related to education, and the role of learners and teachers or learning and teaching might be summarised as in the following paragraph:

> "Education isn't what some people declare it to be, namely, putting knowledge into souls that lack it, like putting sight into blind eyes... the power to learn is present in everyone's soul and the instrument with which each learns is like an eye that cannot be turned around from darkness to light without turning the whole body. This instrument cannot be turned around from that which is coming into being without turning the whole soul until it is able to study that which is and the brightest thing that is, namely, the one we call the good." (Republic, 518c)

The *banking theory* of Freire (1970) that criticises the *ideology of oppression* is in line with the tenet of Plato. Freire argues that education suffers from narration sickness (2000, p. 71) which imposes the teacher (as narrator) as the knowing body who speaks about "the ultimate reality", and the students record, memorise, and repeat. He further describes that this turns students into passive "containers" who lack creativity and critical thinking. Therefore, education becomes an act of depositing information into empty receptacles, in which the teacher is the depositor and the students are depositories (Freire, 2000). Both for Plato and Freire, critical consciousness and scepticism about reality is crucial and a must for enlightenment and "self-realisation". Moreover, both philosophers emphasise that the correct education is not deliberately teaching others or necessarily learning from others. Real education is a bidirectional process, in which teachers may learn from the students and students may learn from the teachers, and this can be achieved through exploration of epistemological and ontological debates about the true reality

through dialogue. Besides these opinions related to the teacher and learner roles in education, Plato's Idealism values the spiritual feelings that might be extracted out of the souls as subjective sources of knowledge. This is a typical style of qualitative investigation. Ratnesar and Mackenzie (2007, p. 107) remarked that the goal of using qualitative methods is to determine what persons mean and to comprehend their subjective interpretations, that is to say, to understand individuals from their own viewpoints. Idealism emphasises the quest for truth, beauty, morality, justice, etc. that are everlasting virtues and possessed by each soul, which influence how everything is perceived and processed. It is proposed that these virtues might be revealed and kept alive through courses such as music, arts, drama, sports, ethics, etc., and the main problem of education should be to provide the right surroundings and opportunities for these to grow and advance. For this reason, an educator who adopts the idealistic stance would most probably prefer to employ qualitative approaches or interpretative methodologies while performing his/her duties, and thus, would focus on the inner world of the learners, their needs and interests, and question and examine the moral and spiritual acquisition enabled by the educational input.

On the other side of the coin, Aristotle postulated that reality could be comprehended by observing nature. According to his philosophy reality is what is perceived through the five senses, which implies a focus on physical entities. Aristotle, as a student of Plato, broke with his mentor's philosophy, and took the world in a completely opposite direction, the researcher would comment, to a level that is as diverse as the qualitative and quantitative distinction. Realism counters the view that reality can be perceived and probed subjectively, by propounding that truth is objective and valid for anyone and every condition. In this sense, the ultimate reality is generalizable and observable in natural or laboratory environments, that is to say, reality is external to individuals. Therefore, it is possible to infer that education in the Aristotelian view would teach how to improve the power of mental logic for reasoning physical events and aspects without involving subjective feelings or beliefs. The ultimate emphasis would be on exercising the rational thought that will depend on objective, observable, and generalizable facts. The educational curriculum of realism would be positivistic in nature, and emphasise the analytic methodologies of subjects such as biology, physics, chemistry, etc., which will necessitate standardised rules and criteria to make decisions and reach conclusions through verification. Additionally, the rules and criteria will derive from the law of nature.

Positivistic understanding and quantitative research have highly dominated most scientific and educational methods and practices in the twentieth century.

In parallel to Aristotle, John Locke's *theory of mind* (1689) also opposed the idealistic view of Plato. He reinforced the positivistic understandings of philosophers such as Auguste Comte and Francis Bacon by explaining that the minds of human beings are blank slates (*tabula rasa*) at birth, and that all knowledge is the result of sensory experience and perception. According to him, experience (whether external or internal) and reflection were the sine qua non for knowing something, and these should be realised through the sense organs (Phillips, 2003, p. 234). Locke took the problem of education further by asserting that it is a prerequisite to establish an authority and ascendant over children, and even to exercise physical discipline when necessary, while also instructing that shame was a better tool than corporal punishment (Zack, 2010, pp. 146-148). This is positivistic empiricism that requires training people in a standardised way that will be also in accordance with the laws of nature, so that each individual will acquire the universal rules and knowledge, even if this is at the cost of manipulating people's thoughts, feelings, and characters. Realism, as a philosophy, which was further strengthened by the s*ensational reasoning* of Locke, has influenced most of the modern educational principles and applications. The educational innovations proposed by the Swiss pedagogue and reformer Johann Heinrich Pestalozzi in the late eighteenth century indicate clear signs of Aristotelian philosophy and of Locke's educational aspect, in the so-called *object lessons*, which aimed at training the senses as they were to be used in the emerging school systems in due course.

2.1.2.2. Perspectives and Implications of FLL/T

Having set the basic distinction between the naturalistic and positivistic views of Plato and Aristotle, it would be helpful to discuss these contrastively with specific and more concrete instances of qualitative and quantitative examples of FLL/T. Educational idealism and educational realism are the two sides of a continuum. The direct heroes of this continuum are learners and educators. Therefore, the researcher intends to use an analogous style to describe and explain the perspectives and implications of two types of learners (Learner 1- L1 and Learner 2- L2) who adapt to the positivistic or naturalistic influence by a relative quantitative or qualitative process, and two teachers (Teacher 1- T1

and Teacher 2- T2) who adopt the positivistic or naturalistic stance with a relative quantitative or qualitative approach during their engagements in FLL/T. Nevertheless, it should be noted that as these analogous stories would be based on fictitious examples, it would not mean that in real life conditions or environments the scenarios and/or heroes would appear exactly as explained here.

It should be indicated that the narrations constructed in the following should be supposed to develop in "traditional" settings, where the teacher and student roles are predefined and predetermined by the educational policies of the authorities in charge, which has been the most frequently adopted approach of educational policies and settings in the age of modernity in many locations all over the world, and which still continues to heavily guide and affect the educational processes, despite some innovative efforts and understandings of the postmodern view. The curriculum and contents as well as the techniques and approaches in the traditional educational settings are imposed or urged by an authority from the top. In other words, the tradition and tendency in the traditional educational culture is mostly "top-down" in nature as opposed to a "bottom-up" approach. This will be further discussed and exemplified in section 2.1.3 where the modern and postmodern conditions in training and/or education will be compared.

a) Characteristics of T1 (Positivistic Perspective): T1 might be an FL teacher who follows strict principles, rules, frameworks, etc. while teaching the lesson subjects as s/he believes that each topic (if it is installed in the curriculum) or unit in the course book should be reviewed in depth or at least touched on even when some particular sections would not suit the needs and interests of the learners. T1 might adopt a position according to which students' role and existence would be highly bound to the presence of the educational setting, which comprises the educational program and curricula, syllabuses, materials, physical facilities, instructing and managing parties, and so forth. T1 might tend to think that the learners cannot know what would be good or useful for them, and thus, that they need him/her as an authority who not only will tell learners what to read and write and learn, but also teach them the best and valuable things in the best way s/he knows. When evaluating the teacher and teaching side, T1 might believe that an "intellectually high-level teacher" is the best teacher. Therefore, s/he would continuously try to improve his/her subject knowledge and skills, with the purpose of better "teaching" his/her pupils.

When evaluating the learning and learner side, T1 might think that those students who score high in exams and tests are the best students, or that the students who better follow the course procedures are the most successful ones. T1 will heavily concentrate on and strive to provide the students with the highest possible quantity of knowledge and information that will help them on the way to their academic achievement; and s/he will most probably assess and evaluate the students according to the end products and/or results, which would indicate a significant summative evaluation approach as the characteristic tradition of the realist and positivistic philosophies.

b) Characteristics of T2 (Naturalistic Perspective): T2 might be an FL teacher who follows flexible principles, rules, frameworks, etc. while carrying out the educational services as s/he believes that learners' needs and interests come before all other elements in education, and thus, s/he might tend to skip some topics or units in the course book (if s/he uses one) in accordance with the requirements of the learners. T2 might adopt a position according to which students' role and existence is the main reason for the presence of the educational setting, which comprises all educational elements. T2 might tend to think that the learners do not necessarily need to know what would be good or useful for them, but that they should feel an overall satisfaction during education, and thus, s/he would put deliberate effort into "helping the students to learn" rather than into teaching them according to some fixed methods and/or materials. When evaluating the teacher and teaching side, T2 might believe that an "emotionally and morally high-level teacher" is the best teacher. Therefore, s/he would continuously try to improve his/her personal capabilities and character, with the purpose of better "understanding and assisting" his/her pupils. When evaluating the learning and learner side, T2 might think that those students who show better manners and attitudes, regardless of their academic achievements, are better students or that the students who indicate more positive or high quality characters (e.g. having extra concentration and talents, etc.) that might be associated with being a good human being are more successful outcomes of the educational systems. T2 will heavily concentrate on and strive to provide the students with the highest possible quality of behaviour and understanding that will help them on the way to acquiring good personalities; and s/he will most probably assess and evaluate the students according to their overall states throughout the semester or year, which would indicate a significant formative evaluation approach as the characteristic tradition of the idealist and naturalistic philosophies.

c) Characteristics of S1 (Positivistic Perspective): S1 might be an FL student who trusts and believes in the authorities that decide and plan for his/her education, and who surrenders his/her intellectual and academic conditions in such a way that s/he almost automatically does every piece of homework, studies the subjects and materials told to him/her, memorises each item of knowledge, formula, etc., and works to get the highest possible marks at the end of the course or educational year, with the purpose, for instance, of becoming a proficient FL teacher. S1, for instance, as an FL student might focus on the rules, grammar, and vocabulary of the language that s/he studies in an analytical way, and thus, try to increase his/her quantity of knowledge. S1 might tend to complete and accomplish the given tasks on time and in the way the teachers ask without much questioning of the purpose or content of the given tasks. For S1, the ultimate rank or score awarded by the teachers will be the indicator of his/her achievement level that will show how much vocabulary s/he has learnt or how good his/her grammatical knowledge is, etc.

d) Characteristics of S2 (Naturalistic Perspective): S2 might be an FL student who seeks for information and skills improvement that will be in line with his/her needs and interests in the way of self-satisfaction, and who therefore collaborates and compromises with the content and activities that s/he enjoys and/or sees benefit from somehow. S2 might not try to attain the highest score in the exams, but would concentrate on getting the best out of what s/he receives that adds to his/her personal well-being. S2, for instance, as an FL student might focus on the speaking, listening, communicative skills, etc. of the language that s/he studies in a pragmatic way, and thus, try to improve his/her efficiency as an FL using person. S2 might tend to complete and accomplish the given tasks more willingly and precisely when the tasks catch his/her attention and interest. For S2, the ultimate gain and personal satisfaction from the course will be the indicator of his/her achievement level that will show the extent to which s/he is comfortable with learning, using, teaching the FL, etc.

In summary of the above, although there might not always be that kind of clear-cut distinction between the teachers and/or students, it is a fact that the diverse views of Plato and Aristotle can be often observed in the views and preferences of other philosophers in history and also in those of ordinary people. It would be useful to remind ourselves once again that the beliefs and preferences of the beholders or authorities significantly affect the

deeds. For instance, if the "tabula rasa" notion of Locke is to be accepted as reality, then most probably, the educational functions of "formal" institutions will be teaching- rather than learning-focused, and therefore the approaches, methodologies, and procedures will be authoritative and top-down in nature. On the other side of the coin, if Plato's tenets of knowing and reality are taken for granted, then the methodologies will have to be mostly learning- rather than teaching-focused, and the autonomy or opportunities for self-realisation will be underlined and provided, and therefore, informal education allowed and accredited. Naturally, the educational regulations and processes will have to adopt a constant stance to match the philosophical approach. It might be also suggested that the perspectives and applications in the field of FLL/T have been affected by the minds of persons who possess these views. Having put aside the pre-literature methods of teaching and learning in FL education, the field has witnessed many formal methodologies beginning from the Grammar Translation towards the eclectic methods, and the Post method era that in a similar way reflect the tendencies of the two mentioned views. These tendencies of perceiving, processing, and evaluating the world and learners as well might be also observed in all theories of learning such as behaviourism, cognitivism, constructivism, social constructivism, etc. The perspectives and implications in FLL/T depend mostly on national educational policies but also vary largely across countries and individuals. Inevitably, the philosophical stance is always a strong determiner of every conscious activity, process, result, etc.

2.1.3. The Modern versus Postmodern Conditions

The discussions related to modernity and postmodernity are revolutionary when taken both one by one and together. The modern era, also referred to as the modern period, might be defined as the time period that commences after the Industrial Revolution and continues thenceforth[9]. The modern era has witnessed enormous reforms, innovations, and developments that have opened new doors and created new perspectives almost in every area of humanity. The modern era might be one of the most fruitful time periods the world has seen, but also one of the worst depending on from which aspect the matter is tackled. The blooming societies and flourishing minds of people have been captured by a belief that everything can be achieved through a systematic and positivistic attitude of modern

---

[9] http://en.wikipedia.org/wiki/Modern_history

science, which will lead towards prosperity, wealth, and well-being. This was the age of strong "structuralism"[10] and "determinism"[11]. The new inventions and discoveries in technology unavoidably urged people to obey the outcomes of science and positivism. The 20th century was the period of time when the tenets of Aristotle and his successors' philosophies dominated and directed almost every branch of studies. This attitude has led towards an all-around structural tradition that has strictly defined, supported, and legitimated its rules and existence by teaching and expanding itself all over the world and deeply into the bases of the sciences.

Accordingly, scholastic education has been strengthened and accredited in such a way that authoritative, formal, and top-down understandings have overwhelmingly penetrated educational policies, programs, curriculums, materials, etc. Scholasticism has raised, introduced, and taught new and numerous classifications, dichotomies, formulas, etc. and shaped the minds in an almost uniform mould of globalisation. Uzun (2012a) appraised that the modern educational system contains dichotomies such as formal vs. informal education, social/group vs. autonomous/individual learning, etc. and that usually the first approach in the mentioned dichotomies is preferred and valued more than the latter as these involve and comprise more the characteristics of the positivistic philosophy. He further explained the modern versus postmodern matter as in the following:
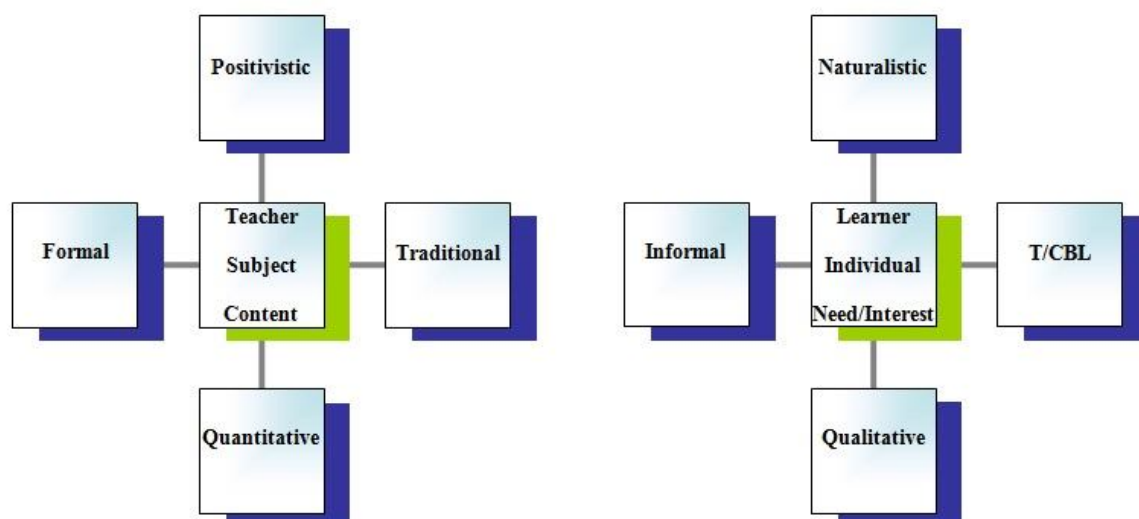
Figure 2.1. Modern vs. Postmodern education (adopted from Uzun, 2012a)

---

[10] http://www.princeton.edu/~achaney/tmve/wiki100k/docs/Structuralism.html
[11] http://www.informationphilosopher.com/freedom/determinism.html

The figure explains that the modern approach to education depends mostly on positivistic philosophies which concentrate on quantitative results, and is usually formal and carried out in traditional settings, where the teacher, subject, and content are in the centre. On the other side of the coin, the postmodern approaches to education allow room for naturalistic philosophies which value qualitative outcomes, and might prefer informal, technology/computer based learning, where the learner, individual, and needs/interests would be in the centre of the educational processes, procedures, curriculums, etc. Uzun (2012b) explained further as follows:

> "… the 'modern approach' works as follows: All the learners are put together in the same classroom and are given, for example, the same text to read and urged to follow the same activities afterwards, regardless of the interests or intelligence types of the individuals that form the group. Therefore, it is possible to suggest that until very recently, … formal education, fixed programmes, subjects, time, place, and so on, have dominated the process to a great extent. Learner dependency and standards-focused education have been like a virus that has been hard to get rid of."

To put it another way, the modern condition is based and depends highly on the positivistic and behaviouristic understandings, which strictly define and standardise the goals and processes with high focus on communal pragmatism rather than individual benefit. In other words, "communal" behaviourism, cognitivism, constructivism, etc. become the central and significant point, while education in this view is converted into a mass education just like mass production of everything else. Modern collectivism conceives of a common intellect, morals, habits, even appearances, behaviours, places, etc. for everyone. For this specific reason, in the modern view the degree of a given thing's value and validity will depend on the degree to which that given thing is close to common knowledge, skills, values, etc. regardless of individual and/or unique predispositions.

It tends to be the case that the strict and predefined nature of positivism or structuralism and the modern view, and the inconsistencies and incompatibilities of these with the emerging conditions of the era, that is, with the innovations and developments in technology; the diversity in thoughts, feelings, needs, and interests as well as the personality, habits, likes and dislikes profiles of the people; and the rise of new

philosophical criticisms, discussions, and perspectives have triggered a reaction that would be hard to talk about in the language of the modern, or to define and explain by the systematic tradition of positivism and structuralism. Also, neither would it be appropriate to detect where and how this reaction has begun nor would it be correct to determine the historical development of this view, namely *postmodernism*. This reaction could be observed in almost every area where modernity functions, and used to be associated, for instance, with the philosophical theories and movements of Jacques Derrida (1967) known as "deconstruction"[12], through which he criticised the systems by which all dogmas and knowledge have been produced; the "post-structural"[13] analyses of Michel Foucault (1966) that addressed the relationship between knowledge and power, and how these are used as means of social control; the criticisms of Jean-François Lyotard (1979) related to the "metanarratives"[14], which sceptically scrutinised the accuracy and validity of universally proposed narratives. Studying the works of these names is as meaningful and related to education as it is studying, for instance, the works of John Dewey, John Locke, Jean Piaget, etc. who are considered inseparable from the history of the educational field.

Derrida's theories of deconstruction try to explain that there is no safe ground to stand or depend on, and therefore it is not possible to be certain or absolute about any problem related to episteme[15]. Derrida (1978) argues that everything in Western philosophy is structural in nature that attempts to locate a fundamental stance or position, which will serve as an absolute beginning and centre from which everything will be originated, mastered, and controlled (p.279). It can be inferred that objectivity is something unreliable since the system of reliability and validity itself is harmed at the beginning, and thus, all the proceedings will be harmed. Derrida (1992, p.41) postulated as follows:

> "When the path is clear and given, when a certain knowledge opens up the way in advance, the decision is already made, it might as well be said that there is none to make; irresponsibly, and in good conscience, one simply applies or implements a program."

---

[12] http://www.britannica.com/EBchecked/topic/155306/deconstruction
[13] http://www.princeton.edu/~achaney/tmve/wiki100k/docs/Post-structuralism.html
[14] http://www.newworldencyclopedia.org/entry/Metanarrative
[15] http://www.michel-foucault.com/concepts/

In other words, if it would be possible to explain the matter within an educational context, once the curriculum, syllabuses, materials, etc. of the course are set, there is no way to escape the path and procedures that the authorities have determined. There is no way to avoid the inconsistencies, incompatibilities, unpleasantness, etc. of structuralism; and the implications as well as the consequences will be determined from the beginning. This might be evaluated as a planned process that determines the input and output control, but at the expense of creativity, diversity, and uniqueness- an approach that is far from being objective or the pure truth or reality. Biesta (2004, p.38) declared that the very point of deconstruction is that responsibility only begins with the acknowledgement of aporia and undecidability. Therefore, educators always need to be poised and cautious about their knowledge and actions, which will require continuous "creative and critical thinking" in order to enable a more humanistic education for individuals. Judging, assessing, and classifying students according to a system that is quite subjective would not be a stable philosophical stance nor would it be helpful for the learners. Derrida's views are important since they have significant implementations for education and valuable lessons for teachers, students, and everyone involved in or responsible for educational actions.

Foucault's views and post-structuralism have incrementally influenced education since 1991 (Marshall, 2004, pp.74-75). Foucault attacked the anti-humanist philosophies of concepts and structures by putting emphasis on experience, meaning, individual, and consciousness. Foucault (1994, pp.541-542) critically analysed society, and described that "games of power" were played in relation to determining and legitimating the rules of the games that would be followed in each area, and by which true and false, valuable and not valuable, relevant and irrelevant, valid and invalid, etc. would be considered. Foucault criticised the fact that traditional approaches to power were from top to bottom, or top-down in other words; which was not a humanistic approach, and thus, he proposed that power should arise from the bottom up (Sawicki, 1991, pp. 20-21). This is very much relevant to the current modern structure of education that is top-down. Moreover, and perhaps a more dramatic point, is that education is used to activate and strengthen this authoritative top-down power by certain social regulations and control. Foucault discussed that knowledge systems also were related to issues of power, and that knowledge was always pointed out and determined by power, which in the modern world used institutions and disciplines within the social structure (Foucault, 1980b, pp.93). These aspects create not only critical views towards the theories of knowledge but also serious concerns related

to the reliability of the authorities that hold the power, and suggest what true and/or false knowledge is or is not. While in his earlier works Foucault explored and debated the production of self by others and through human sciences, in his latter works he emphasised how human-beings turn themselves into a subject, consciously or unconsciously, by their own will (Olssen, 2004, pp. 66-67). Olssen (ibid.) reported as follows:

> "… certain institutions- prisons, mental hospitals, schools, etc.- have functioned as apparatuses which have been instrumental in constructing the modern conception of the subject and the very idea of what it means to be normal. They are vehicles by which the population is organised, …"

The main criticism has been that the modern approach constantly insists on improving the welfare of human-beings, not as individuals as such, but rather as subjects of a population, and servants of power. Foucault (1980a) asserted that modern powers rely on forms of knowledge rather than on force to regulate populations by defining, describing, and teaching the norms of educability and normality. The "normality" notion is criticised as well, as the new law of modern society that categorises and/or classifies individuals according to the standardised rules and expectations of the industrial processes and products. To put it another way, within the educational context, a normal learner in the current age of technology would be the one who will be aware of the best and most popular information and artefacts, and can use these. For instance, a learner who does not have an e-mail account and cannot send e-mails might be regarded as odd or not normal; or a person who cannot understand the language of modern technology; or someone who cannot use a mobile phone; or someone who is not very supportive about Newton's law of universal gravitation, for instance, would be seen as completely insane or illiterate. In short, the modern educational system attempts to create and aims at creating uniform subjects that possess uniform knowledge, behave in similar predictable ways, and employ similar skills, methodologies, objects, etc. The opposite ways would count as "abnormal", which usually would need to be confronted with some form of oppression, punishment, or exercise of law. Therefore, the modern educational and knowledge systems are blamed for not liberating the individual, but rather put him/her among certain, structural, predetermined, etc. patterns that are imposed and taught by modern science. The modern age seems to be a totalitarian one that regulates the social order and relations, and imposes

the rules and languages to be used and followed while viewing, carrying out, and evaluating actions and/or processes. The influence of Foucault and post-structuralism on education continues to grow, a fact which seems promising in terms of liberation of the individual, knowledge, and education phenomena; as the counterpart of structuralism that insists on a certain model of individual and society relations, etc.

In his highly influential work *The Postmodern Condition: a Report on Knowledge*, which contributed to developing a philosophical interpretation related to the changing state of knowledge, science, and education, Lyotard postulated that scientific knowledge is a kind of discourse, and that knowledge is prone to change, lose its "use-value", and be an end in itself. Lyotard (1984, p. 3) hypothesised as follows:

"… the status of knowledge is altered as societies enter what is known as the postindustrial age and cultures enter what is known as the postmodern age."

The matter of knowledge and power was examined by Lyotard, too who questioned the competency, qualification, and sufficiency of government and university as authorities that decide what knowledge is as well as what needs to be decided. It was explained that modern scientific knowledge, which is reached through "verification" or "falsification" methodologies, consists of narratives that need to benefit from other narrative kinds of knowledge in order to be legitimated. This is quite a subjective approach that can be observed in the entire history of cultural imperialism from the dawn of Western civilization. According to Lyotard (1984), positivistic modern knowledge is not much different or greater than narratives and "narratives are fables, myths, legends that are fit only for women and children" (p. 27). It was stated as follows:

"The grand narrative has lost its credibility, regardless of what mode of unification it uses, regardless of whether it is speculative narrative or a narrative of emancipation." (p.37)

Therefore, post-structuralism or postmodernism might be seen as a movement of delegitimizing what has been legitimized through the positivistic philosophies of the modern, determinism, and structuralism. Through these harsh criticisms, it has been

discussed that the traditional modern approaches to science, knowledge, power, and human existence have created a crisis that has triggered reaction against non-humanistic, fallacious, and political narratives, since these have turned out to be the narratives of the rich seeking more wealth and power. The metanarratives no longer liberated people or showed the pure truth in modernity. Modernity has become one of the names of capitalism that focuses on the "rule of performance" only, which requires the endless optimisation of the cost/benefit and input/output ratio (Lyotard, 1993, p. 27). Peters (2004) explained that this is a period dominated by technological processes that automate knowledge production and reduce education to a set of exchange values in this process (p. 49). The effects of this view on education have been very dramatic, a matter which will be further discussed in section 2.3 (Educational Background).

2.1.4. A Summary of the Philosophical Ground and its Relation to the Study

The philosophical stance and basis determine the path that a research will follow. The very reason that lies behind any investigation is either ontological or epistemological in nature or both that might expand its scope by further pragmatic and/or empirical interests. An investigation can be either positivistic or naturalistic or both, and can use either quantitative or qualitative data or both (mixed method/triangulation) for verification of data. Combining the philosophies, methodologies, techniques, etc. might be a powerful approach that will involve, comprise, and tolerate views from diverse sides of a matter. This is a kind of game that human beings play to discover, uncover, or invent. However, it seems that modern positivism reveals a strict structuralism and determinism that is hardly tolerant of or flexible towards unconventional ideas or rules that might be proposed from outside of its own circle. This strict manner of the modern world has created a crisis, raised some voices, and triggered serious criticisms with demand for a more humanistic, tolerant, and adaptive attitude towards the ontological and epistemological issues. This movement has been named as postmodernism, which employs post-structuralism as a means of analysis in providing evidence and reasons against the conventional views and rules of the modern understanding and structuralism.

By this means, postmodernism launches the deconstruction operation that appears as a "terrorist attack" towards all narratives of modernity- but which needs to be accredited when it comes to creating a broader, more humanistic, objective, and inclusive, as well as a

deeper understanding of the world. If we accept that the age of modernity has taken the world to a misleading way or corner of reality, and if it would not be too assertive to postulate the following; to my knowledge and comprehension, this movement has been initiated by the head of Aristotle who countered Plato. So, the world has to go a long way back to trace and deconstruct in order to reach a point where every phenomenon, rule, method, etc. can be initiated from the beginning. Nevertheless, as this account might sound completely unreasonable and incomprehensible, another suggestion could be to see that deconstruction is education (Biesta, 2004, p. 41), and accept that we need a new theory of knowledge (Foucault, 1972) as well as a new pedagogy (Ulmer, 1985, p.173). This will encourage and teach the humanity that educational theory should seek to critique and uncrown existing metanarratives that function to legitimise education in uniform terms (Lyotard, 1984).

The present study, within and bound to the game rules of the modern, was based on such philosophy explained above related to postmodernism and deconstruction, to the extent that the political and physical conditions and facilities allowed. The power, knowledge, authority, evaluation, etc. notions were seen from bottom-up, and also an attempt was made to adapt the applications to the same principle. The current study claims to have created a setting that is relatively liberal and contemporary, but far from modern because of the philosophical differences between the approaches of the researcher, methods and techniques of the applications carried out, and the assessment procedures and the principles and tenets of the structuralism and determinism of the modern era. Therefore, the present study seeks theoretically and practically to find ground on the ideas of the unconventional post-structuralism and postmodern philosophies. The group of participants as well as the conditions within which the study was realised would not fit exactly into the predefined principles of positivistic scientific research. Critical and creative thinking were the two fundamental principles that were encouraged both for the instructor and the learners at every stage and procedure of the course on which the study was implemented.

Admittedly, one should always be concerned with ontological and epistemological questions, that is to say, to be in query about what we know, what we can know, what reality is, etc. A teacher should always question his/her knowledge, beliefs, and attitudes besides the reflection that should be constantly carried out related to educational

behaviours and activities. Additionally, creative and critical thinking are two very things that not only teachers but everyone involved in education should carry out both to update and refine the existing conditions and to improve the perception of the self and the outer world. Everything related to education seems to be a question of choice and preference; for instance, whether the goal will be to train, educate, and develop "better teachers" or "better human beings" (who in return will be good teachers already)- because being a good teacher does not or should not only mean being a good narrator of the information that can be found in books and articles, or reached on the Internet already- but should also mean treating people with passion, love, care, tolerance, etc., and encouraging them towards improving their characters besides their intellect, through self-assessment and criticism, and critical and creative thinking as basics of a good human being.

This might be realised by appropriately combining the views of the positivistic and naturalistic philosophies, for example, by distinguishing idealism for social sciences and realism for technical sciences since both approaches have systematic approaches to reality but deal with extremely different types of subjects or data in origin. Otherwise, it would create a tendency to treat human beings as machines, and who knows, machines as human beings, which might most possibly occur towards the age of artificial intelligence. Generalising or stereotyping, as a common tendency of the quantitative view, should be avoided or approached with caution and attended to more carefully. This might be achieved through triangulation, that is, by employing qualitative methodologies such as formative assessment and analyses as well, which was done during the present study.

The cave analogy of Plato and his descriptions about the shadows as reality should be revised more carefully before fully adopting and adapting Aristotle's classification and categorisation principles as mottos and guiding tents of universal development, which seem to serve no humanistic or unifying use as they lead to polarization and creation of "binary oppositions"[16] where one of the two opposites assumes a role of dominance over the other. There are fascinating movies such as *Le Tableau*- The Painting[17] (2011), and *Accepted* [18](2006) that saliently show what Plato might have meant, and how polarization can be instigated. Likewise, another movie, namely *3 Idiots*[19](2009), demonstrates how certain and strict rules of positivistic education can degrade humanistic attitude, and also

---

[16] http://www.ask.com/question/what-does-binary-opposition-mean
[17] http://www.imdb.com/title/tt1891769/
[18] http://www.imdb.com/title/tt0384793/?ref_=fn_al_tt_1
[19] http://www.imdb.com/title/tt1187043/

contradict itself. Here is a transcript of a dialogue between the Machine Class Professor and two freshmen (Chatur and Rancho) in a lesson from a scene of the movie:

Professor: *What is a machine?... Why are you smiling?*
Rancho: *Sir, to study Engineering was a childhood dream. I'm so happy to be here finally*
Professor: *No need to be so happy. Define a machine!*
Rancho: *A machine is anything that reduces human effort.*
Professor: *Will you please elaborate?*
Rancho: *Anything that simplifies work, or saves time, is a machine. It's a warm day, press a button, get a blast of air. The fan... A machine! Speak to a friend miles away. The telephone... A machine! Compute millions in seconds. The calculator... A machine! We're surrounded by machines. From a pen's nib to a pants' zip - all machines. Up and down in a second. Up, down, up, down...*
Professor: *What is the definition?*
Rancho: *I just gave it to you, sir.*
Professor: *You'll write this in the exam? This is a machine - up, down... Idiot! Anybody else?... Yes?*
Chatur: *Sir, machines are any combination of bodies so connected that their relative motions are constrained and by which means, force and motion may be transmitted and modified as a screw and its nut, or a lever arranged to turn about a fulcrum or a pulley about its pivot, etc. especially, a construction, more or less complex consisting of a combination of moving parts, or simple mechanical elements, as wheels, levers, cams etc.*
Professor: Wonderful! Perfect. Please sit down.
Chatur: *Thank you!*
Rancho: *But sir, I said the same thing, in simple language.*
Professor: *If you prefer simple language, join an Arts and Commerce college.*
Rancho: *But sir, one must get the meaning, too. What's the point of blindly cramming a bookish definition?*
Professor: *You think you're smarter than the book? Write the textbook definition, mister, if you want to pass!*
Rancho: *But there are other books...*
Professor: *Get out!!!*
Rancho: *Why?*
Professor: *In simple language - Out! Idiot!...So, we were discussing the machine...*
　　　　　　(Rancho heads out but then walks back into the classroom)
Professor: *Why are you back?*
Rancho: *I forgot something.*
Professor: *What?*
Rancho: *Instruments that record, analyze, summarize, organize, debate and explain information; that are illustrated, non-illustrated, hard-bound, paperback, jacketed, non-jacketed, with foreword, introduction, table-of-contents, index that are intended for the enlightenment, understanding, enrichment, enhancement and education of the human brain through the sensory route of vision, sometimes touch.*
Professor: *What do you mean?*
Rancho: *Books, sir. I forgot my books. May I?*
Professor: *Couldn't you ask simply?*
Rancho: *I tried earlier, sir. It simply didn't work.*

This dialogue, although not in manner, is quite close in content and approach to what the current educational system is like. The Machine Professor in the movie seems to possess a philosophy that allows him to act as if the students in the classroom are there for him, but not opposite. He uses his authority to oppress them and to decide for them when, what, and how to learn. Nevertheless, the postmodern knowledge and approach to education would take the individual, differences, and originality into the centre. Uzun (2012b) argues as follows:

> "…classrooms are not places for teacher satisfaction, but places where learners come with particular purposes, and teachers attend the classes because students are there. Simply said, teachers in the current world exist because learners exist, which means that without the learners, teachers would not exist. This should not imply that teachers or teacher education can be underestimated but rather that teachers principally exist for students, and students will continue to learn whether or not teachers exist in the current age of technology and globalisation."

In the present study, the instructor possesses the exact philosophical stance that allows the students to be the authority, to take the control and initiative, and to be in the position of decision-making and responsibility-taking related to their own education. The role of the instructor is just to introduce new topics, materials, techniques, etc. for the consideration of the students, and to guide, facilitate, and support them whenever they need. Moreover, the instructor does not require students to come to the classroom for formal instruction for each unit or subject of the educational programme, but rather provides the options and conditions that the modern educational policies would not allow, in fact informing the learners that they can do the tasks out of the school environment and submit their work online. The students are not treated as creatures not to be trusted, and therefore, the evaluation and assessment is based on simple principles that require the activation of self-consciousness, self-regulation, autonomy, and responsibility for one's own learning and life.

In the following section the researcher intends to explain and discuss the role of psychology in education, while touching on some significant theories and studies that

might shed light on and/or provoke critical and creative thinking towards human action(s) and feeling(s) in education.

2.2. Psychological Background

Why does the researcher touch on the psychology field as a basis of the present study? The reason is that this is an educational study that deals with learners, first of all, and this nature of the study necessitates the inclusion and consideration of humane feelings as the participants are not plants, animals, machines, etc., but human beings. Educational psychology has been involved with the topics of motivation, individual differences, cognition, intellectual development, evaluation and assessment, etc. (Larson, 2009, p. vii). Therefore, the psychological background of the present study should be interconnected primarily with the theories of learning such as *Behaviourism*, *Cognitivism*, *Humanism*, *Constructivism*, etc. as well as with domains such as Abraham H. Maslow's *Hierarchy of Needs* (1943), Edward L. Deci and Richard M. Ryan's *Self-determination* (1985), and Mihaly Csikszentmihalyi's concept of *Flow* (1990) that have strong relations with motivation, which is one of the most fundamental factors in learning. Moreover, researchers have stressed the need for more cross-disciplinary interaction between applied linguistics and psychology with respect to many problems in language learning (e.g. Bialystok, 2000; Segalowitz, 2000; Barcroft, 2007). In the following sections the researcher will not discuss the mentioned domains, but rather try to show the links and relatedness of these to the present study.

Psychology as a scientific branch, as all other branches are, is affected by philosophy. The philosophical distinction between "rationalists" and "empiricists" has caused psychology to be handled in two separate ways. Carr (2003, p. 85) explained that rationalists such as Plato, Descartes and (arguably) Kant, have been "dualists" (those who regard mind and matter as in some sense metaphysically distinct or mutually irreducible entities or realities), whereas more empirically minded philosophers such as Aristotle, Bertrand Russell, and John Dewey have been more inclined to some sort of "monism" (the view that argues that the variety of existing things can be explained in terms of single substance or reality). In empiricism ideas and knowledge derive from experiences, and the associations that the mind makes through sensory impressions or perceptions of the external world; whereas in rationalism logical reasoning is the most reliable source of

knowledge, because through reason people learn not only concrete things or concepts that the external world reflects but also abstract ideas. In other words, rationalism is the doctrine that knowledge arises through the mind, whereas empiricism holds that experience is the only form of knowledge (Schunk, 2012, pp. 6-7). Comprehending these two views is important in order to understand how psychology is addressed in education.

The psychological experience, whether related to the mind or the feelings, is either explained through logical analysis and inference as in rationalism, or by statistics related to sense perception as in empiricism. Therefore, an educational researcher, whether a rationalist or empiricist, will tend to study, for example, the motivation or attitudes of the students by giving them some statements in questionnaires or other forms and asking them to rate the forwarded statements in terms of a predetermined scale or criterion, after which s/he will enter these data into a program and create some statistics about the visible behaviours of the subjects; or by carefully observing the participants, interviewing them at frequent intervals, activating in-depth analyses through discussions, self-analyses, evaluation, etc. and then reaching some sensible and/or sensitive conclusions through reasoning. Additionally, an empiricist will be prone to believe or infer that what is observed through the physical actions of the body will be the direct reflection of the psychological state of the individual, whereas a rationalist will tend to study the psychological state independently of the physical actions. Moreover, the rationalist point of view will be that the outputs of mind or feelings cannot be completely explicable in the statistical terms of empirical science, whereas the empiricist point of view will be the opposite, that is to say, the psychological state of animate beings can be studied through and explained by empirical experiences. The oppositions related to how information is acquired, processed, and retained during education has given birth to the theories of learning.

According to "behaviourism"[20], the observable behaviours of animate beings directly reflect what is learnt or not, and thus, all unobservable events that might take place in their inner worlds are neglected. Another approach of educational psychology is "cognitivism"[21], which proposes that learning could not be defined just as a "change in behaviour" as the behaviouristic approach claims, and prefers to investigate human beings and the complexities in human memory in particular, rather than to concentrate on the

---

[20] http://www.britannica.com/EBchecked/topic/58702/behaviourism
[21] http://plato.stanford.edu/entries/moral-cognitivism/

environment and conditions. On the other hand, "humanism"[22] emphasises the value of the individual and human nature that necessitates the consideration of self-thought and well-being, and emotional and mental aura. And, more recently, "constructivism"[23] postulates that learning is an incremental process by which each human being improves individually and/or collectively by connecting existing knowledge with new information, and creating new scaffolding learning experiences for meaningful absorption of knowledge. Constructivism has popular extensions today that maintain that information is acquired, formed, and converted into meaningful knowledge through interaction and collaboration with others in social settings, namely social constructivism.

Besides these theoretical assumptions about learning and learners, educational psychology is very much concerned with the needs, interests, and skills of individuals as essential factors that might affect motivation in learning. Motivation can be investigated by the help of Maslow's *Hierarchy of Needs* (HN), which suggests that all human beings, regardless of personal similarities or differences, have common needs that can be arranged in a hierarchy according to the pressing drive for satisfaction, from more primitive or basic towards complex; Gardner's *Multiple Intelligences Theory* (MI), which describes that intelligence is not a single ability but can be divided into at least seven types of abilities (later two additional intelligence types were proposed), that each individual is born with these, and even that some types can be predominant for some people; Deci and Ryan's *Self-determination Theory* (SDT), which explains that when self-determined, individuals experience a sense of freedom to do what is interesting, personally important, and vitalising; they experience themselves as self-regulating agents of their own behaviour (Salkind and Rasmussen, 2008, p. 889); and Csikszentmihalyi's *Theory of Flow* (TF), which studies how people feel when they most enjoy themselves, and why (Csikszentmihalyi, 1990, p. 4). These theories of learning and domains of motivation will be further discussed in the following sections in terms of FL education and in relation to the present study.

---

[22] http://www.ask.com/question/what-does-humanism-mean
[23] http://sydney.edu.au/education_social_work/learning_teaching/ict/theory/constructivism.shtml

2.2.1. Theories of Learning and FL Education

Johnson (2004, p. 9) stated that from a historical point of view the scientific traditions can be ordered from behaviouristic towards cognitive, and dialogical; and that especially in psychology, the field of SLA strongly adheres to the second tradition, that is, the cognitive view. This might be so because of the heavy reliance on Noam Chomsky's linguistic theory of L1 acquisition (the notions and principles of Language Acquisition Device- LAD and Universal Grammar- UG), from the mid-1960s onwards.

2.2.1.1. Behaviourism and FL Education

Up to the early 1960s, FL learning was under the influence of behaviourism as the most popular psychological approach to learning, which was constructed on the investigations and findings of scholars such as I. P. Pavlov (Classical Conditioning Theory[24]), E. L. Thorndike (Instrumental Conditioning or Connectionism Theory[25]), and B. F. Skinner (Operant Conditioning Theory[26]). Although the studies of Skinner differed from those of Pavlov (working with dogs), and of Thorndike (working with cats), because he studied human beings rather than animals, the common concern was behaviours that were analysed under the effect of certain conditions and environments. In the behaviouristic approach learning was regarded as "habit formation", and thus, behaviour was the proper data for educational psychologists to study. In this psychological tradition learning of any kind of behaviour was assumed to be based on notions of "stimulus" and "response" (Mitchell and Myles, 2004, p. 30). In other words, applied to FL learning, certain stimuli such as meeting someone new, entering specific environments (e.g. post office, bank, hospital, etc.), and/or being in certain conditions (e.g. sick, thirsty, curious, etc.), etc. would necessitate certain responses or actions such as greeting or introducing, uttering the formal or fixed expressions of the location, and/or activating the pragmatic structures of a language, that is, the speech acts (i.e. requesting, apologising, offering, advising, etc.) in order to reach the desired outcomes and accomplish a meaningful linguistic communication. Therefore, the FL teaching methods, course books and materials as well as curricula and policies were prepared, arranged, and validated in such a way that FL

---

[24] http://www.britannica.com/EBchecked/topic/120182/Pavlovian-conditioning
[25] http://www.newworldencyclopedia.org/entry/Edward_L._Thorndike
[26] http://www.britannica.com/EBchecked/topic/429878/operant-conditioning

education would create or transform the habits and behaviours of the learners so that these would meet the pragmatic and linguistic criteria of the L2.

It was considered that individuals tend to transfer forms, meanings, and structures from their L1, and thus, the forms, meanings, and structures in L2 that are more distinctive from those in the L1 would be the more difficult ones to learn, and teachers would need to put extra concern and work into these to elaborate and provide more opportunities for learners to practise refining the L2. It was strongly believed that practice makes perfect, and that learning would occur by imitating and repeating the same words, grammatical rules, and structures at frequent intervals. FL teaching methods such as the *Grammar Translation Method*, *Audio-Lingual Method*, *Desuggestopedia*, and *Total Physical Response* are some examples that more or less contain motives of behaviourism and have been proposed and employed by FL educators for a considerable time throughout the history of FL teaching. To put it another way, the outcome of such belief related to the learning process was that teaching should focus on differences between L1 and L2, and that teachers should be equipped with a complete knowledge of these differences as the most useful pedagogical tool for FL teaching. For this reason, FL researchers and educators concentrated a great deal on comparing languages in order to reveal the differences, and named this "contrastive analysis"[27]. Fries (1945, p. 9) proposed that the best FL materials were those that were based on a scientific description of the L2, which should be directly compared with a parallel description of the L1. This might be evaluated as the beginning of the tradition in FL education that directed itself towards concentration on the teacher and the language or methods as objects (in opposition to the learner and individual needs, interests, and skills as subjects, which have been seriously neglected throughout the history of education, especially in the twentieth century of structuralism).

2.2.1.2. Cognitivism and FL Education

Nevertheless, any account of learning in terms of behavioural conditioning falls short of explaining the processes by which human beings come to comprehend (Carr, 2003, p. 93). The heavy reliance on behaviours, imitation, and repetition in behaviourism has been countered by the understanding of cognitivism, the roots of which might be observed in the thoughts of the German philosopher Immanuel Kant who objected to

---

[27] http://en.wikipedia.org/wiki/Contrastive_analysis

empiricists' view that human knowledge is absolute habituation to sensory stimuli, and in the studies of pioneer cognitive structuralists such as Jean Piaget and Jerome Bruner. Cognitivism as an approach in educational psychology emerged in the 1960s after the criticisms of Chomsky (1959) related to the behaviourist view of learning of Skinner (1957) as applied to language. Chomsky asserted that children have a LAD that enhances their learning of language. According to him, children are innately programmed to discover and internalise the rules of the L1, and by the help of these rules, they naturally create new utterances that they have not learnt before, which suggests that children do not copy or imitate the language(s) they hear around, but apply the innate knowledge of rules while speaking. Moreover, unlike Skinner who claimed that a child's learning and behaviour is shaped primarily by the environment or external factors, Piaget's (1959) Cognitive Developmental Theory[28] supported the view that it is the inner possessions that drive children to wonder, learn, and improve by interacting with the environment and constructing an understanding of the world that surrounds them. Likewise, although he rejected the UG of Chomsky, Bruner was another proponent of cognitivism who followed and supported the socio-cognitive view of Lev Vygotsky, and proposed that social interaction was one of the most significant factors that develop cognition and speech. He emphasised that languages are learned to communicate, and it is the communications that lead people to derive and absorb the linguistic codes, but not vice versa as it was postulated by Chomsky.

Cognitive psychology has prompted new research on the new ideas of scholars such as Chomsky, Bruner, and Piaget since the 1970s that can be still observed in our day from the reflections in the field of SLA such as Schumann's (1978, 1990) Pidginization or Acculturation Model, Krashen's (1985) Input Hypothesis, Swain's (1985) Comprehensible Output Theory, Long's (1983) Interaction Hypothesis, etc. as well as the FL teaching methods such as *The Direct Method*, *The Silent Way*, *Community Language Learning*, etc. As was the case in the twentieth century, constructivism has adopted a heavy positivist approach, so that although the focus has shifted from behaviours to cognition, the direction is largely maintained. In other words, although the focus of research has altered towards mental issues, the methodology and processing of scientific data remains the same or similar, that is, positivistic, constructivist, and observable. The main concerns of FL

---

[28] http://www.sciencedaily.com/articles/t/theory_of_cognitive_development.htm

scholars have been the language itself, the acquisition and processing of linguistic knowledge by the students, and the teaching methods and techniques for the teachers, and minimum attention has been paid to the unobservable facts and conditions related to the well-being of the learner such as personal satisfaction, motivation, spiritual and/or emotional motives, enjoyment, etc. Therefore, both in behaviourism and cognitivism the human being has stood mostly as a tool for reaching a target or a subject in experiments that tried to understand behaviours, cognition, languages, etc. rather than being the target itself.

2.2.1.3. Constructivism and FL Education

Following the historical developments in the inquiry into how learning occurs, and into understanding the psychology of learners, the 1980s and beyond has been a period during which constructivism has significantly taken the lead in educational psychology, and increasingly been applied to learning and teaching. The focus of cognitive psychology related to how knowledge is acquired has been shifted towards how knowledge is constructed. In other words, applied to SLA, the focus has shifted from how a FL is acquired to how learners construct and improve their FL knowledge. Constructivist accounts of learning, unlike behaviourist and cognitivist perspectives, have shifted the primary focus onto learners rather than onto behaviours or cognition and cognitive processes. This approach automatically necessitates the activation of more humanistic views and understandings of education since the ultimate goal is no longer the concrete or abstract "reflections" of what is real or true, but the very truth and reality itself, as discussed in Plato's famous cave allegory[29].

Therefore, constructivism maintains that learners realise their own learning by actively creating the meaning of the reality that they interact with. In this interaction, the influence of socio-cultural factors is emphasised by frequently referring to the perspectives of scholars such as Vygotsky and Bruner (among others), and these triggered research on the constructivist or connectionist aspects of SLA that are assumed to be realised through scaffolding, which is enhanced by both mental and environmental factors such as interaction between the learner and other members (teachers, parents, friends, etc.) of the sociocultural world(s). The Sociocultural Theory of Vygotsky has become increasingly

---

[29] http://www.princeton.edu/~achaney/tmve/wiki100k/docs/Allegory_of_the_cave.html

influential within educational environments, so that the notion of "zone of proximal development" (ZPD), and terms such as "competence" versus "performance", and "process" versus "product" or "outcome" have revealed important implications for FLL/T as well. According to the ZPD concept, people develop (at least mentally if not emotionally) in a "zone" that contains specific potentials for interaction with others that are sources of scaffolding knowledge and improvement. According to this view, independent efforts of, for instance, a FL learner would not be enough to reach his/her highest possible potential, and thus, there would be need for certain input provided by, let us say, more mature, conscious, knowledgeable, literate, etc. authorities. This shows the characteristics of a top-down approach somehow that denies the Platonic way of cognition, and autonomy. Attributing human cognitive development to social interaction has given rise to "social constructivism" as the upgraded version of constructivism, which maintains that learning is neither a form of behaviour nor a pure cognitive event that occurs in the minds of people, but rather a process that occurs in continuous elaboration and construction as well as in interaction. Besides being a mediating theory between behaviourism and cognitivism, constructivism seems to have been employed as a psychological theory, which takes into account society and culture as a third factor in learning that was preceded by behaviour and mind.

The last few decades of the twentieth century and the beginning of the twenty-first century have been quite a dynamic period with respect to FLL/T. New methods such as *Communicative Language Teaching*, *Task-based Teaching*, *Content-based Teaching*, *Participatory Approach*, etc. were introduced and employed in line with this theory of learning. Accordingly, student and teacher roles and duties, new forms of computer assisted language learning and/or teaching (CALL/T), ICT and the integration of these in FL education, etc. have been discussed and adapted in parallel with constructivism or social constructivism.

Certainly there is much to explain and discuss about the psychological theories in relation to learning and teaching in general, and SLA in particular. Nevertheless, because of certain concerns about the scope of the study, the present summary should be sufficient to make further references, inferences, and attributions to psychology and to show how educational philosophy and psychology shape and affect the base of educational actions, and thus, the present study.

2.2.2. Motivation in Education

The plethora of research and discussions on motivation indicates that this phenomenon is of utmost interest and importance to educational environments. The issue is not only central to education but also multifaceted and manifested in a variety of constructs including self-efficacy and competency, beliefs, task value and interest, self-determination, and goal orientation (Buehl and Alexander, 2009, p. 479). The literature contains a huge amount of data, all of which highlight the significance of motivation without any doubt, but might vary in the way in which motivation is conceptualised (Crookes and Schmidt, 1990). As described in the matter of learning theories, also in the case of motivation the philosophical stance of the related parties is a very important determinant factor for how the phenomenon will be approached. This is so apparent even in the definitions of a given term, as of motivation, which differ and reflect, primarily the philosophical and psychological view of the creator of the definition, as might be noticed in the following:

A behaviourist would define motivation as "the anticipation of reinforcement of behaviour through reward or punishment" (Brown, 1994, p. 35); while a cognitivist would explain it as "motivation is the process of initiating and sustaining goal-directed behaviour." (Shunk et al., 2008); and a constructivist might propose that "motivation is a dynamic construct." (Dörnyei, 2006); while a more general definition can be put forward such as "motivation is the difference between success and failure." (Brown, op.cit., p. 33), etc.

To summarise, motivation theorists have tried to provide definitions of motivation through their respective philosophical and/or psychological perspectives. While some have focused on rewards and punishments, or drives and needs (goals) as the basis of motivation, others have introduced perspectives that focus on the factors that might affect the construction of motivation such as individuals' beliefs about their abilities and intelligence, self-efficacy, sense of control over outcomes, expectancies for success, etc. (Wentzel and Wigfield, 2009, p. 1). In sum, motivation is directly related to and associated with achievement or learning, which so far has been investigated in the frame of three major psychological approaches, namely behaviourism, cognitivism, and constructivism. Although the literature contains a huge amount of diverse information and theories about motivation and related matters, the researcher would suggest that these seem as if they

differ because of the apprehension and point of view of theorists and scholars related to the operational actions of the social, psychological, and philosophical (whether conscious or unconscious) reflections of animate beings, but could be combined and grouped by a philosophical perspective as presented in Table 2.1. In other words, as is the case in every fundamental matter, the researcher believes that the difference is in the philosophy rather than in the phenomena, concepts, or notions.

Table 2.1. Motivation from the philosophical perspectives.

		Behaviourism	Cognitivism	Constructivism
Naturalistic (Platonic)		Universally accepted and respected "virtuous" behaviours are reinforced to boost motivation to maintain and improve virtue	Cognitions that illuminate the minds and lead towards the "true" reality are reinforced to boost motivation for further illumination	Experiences that prove to be useful and progressive are reinforced to boost motivation with humanistic purposes
Positivistic (Aristotelian)		Motivation through rewards and punishments towards the refinement of behaviours rather than ideals	Motivation through rational reasoning and analyses towards the refinement of mental well-being rather than emotional	Motivation through behavioural, cognitive, and social experiences towards the refinement of living conditions with scientific purposes

Although behaviourism has been labelled frequently together with the positivistic approaches as a tendency of the twentieth century, it cannot be isolated or attributed to positivism alone. Behaviour, as is the case of cognition, is an inherent feature of human beings that should not be considered as a means of conditioning (or analysing in cognitivism as a tool of processing of information) only. Rather, it would be more sensible to see it as naturalistic behaviourism or positivistic behaviourism, where the perspective or aspect from which behaviours are evaluated would be stressed, rather than the behaviour itself. The same could be applied for cognitivism (i.e. naturalistic cognitivism or positivistic cognitivism) and constructivism (i.e. naturalistic cognitivism or positivistic cognitivism), too. As it might be observed in Table 2.1., while the ultimate goal in the naturalistic motivational view is improving and maintaining virtue, true illumination, and humanism, and behaviours, cognitions, or experiences are a means to achieve this; in the

positivistic view the goals are more concrete such as admissible behaviours, mental progressivism, and scientific upgrade.

Various dichotomies have been proposed that raised distinctions between types of motivation. Gardner and Lambert (1972), suggested a difference between "integrative" and "instrumental" motivation, which refer to the desire to learn (an FL) for personal development and integration into the community of the FL; and the wish to learn (an FL) in order to reach some goals related to study, career, or finance, etc., respectively. Brown (1987, p. 115) made a distinction between "global", "situational", and "task" motivation, referring to the general motivation to learn (an FL), the motivation that might occur or be energised in a particular environment (e.g. classroom), and the motivation that might be triggered by a given task (e.g. classroom activities), respectively. Another separation in the literature arose from the one between "extrinsic" motivation and "intrinsic" motivation, which has become very popular in the FLL/T environments. It has been contended that intrinsic motivation stems from the individual whereas extrinsic motivation is driven by factors that are outside of the individual. Most researchers and methodologists have come to the agreement that intrinsic motivation is especially significant in boosting success (Harmer, 2001, p. 51). In spite of this, Ryan and Lynch (2003, p. 260) noted that policy makers advocate the use of rewards and punishments for motivation, or the use of high stakes evaluations to increase the control of teachers, so that they can push their students to work harder or to maintain concentration. On the other hand, some educators contend that people are already inherently motivated to learn, and that thus, the task of teachers is to create opportunities and conditions for learners to trigger that inherent instinct. Therefore, motivation is too complex to be investigated and explained through one dichotomy (Brown, 1994, pp. 34-35). Even so, Gardner (1985) showed that motivation is directly related to success in SLA, and this should be actually what matters. Compared to any other element or factor in education, motivation seems to be the strongest notion that has received a general consensus on its importance with some challenge by natural aptitude for (language) learning. According to Skehan (1989) motivation is the second strongest predictor of success after aptitude, whereas Naiman et al. (1978) claimed it to be the most important one. Ur (1996, p. 275) accentuated that motivation is not measurable, and thus, the question of whether motivation or aptitude is more important is unanswerable. Regardless of the "which one is more significant" discussion, most research focuses on finding answers to how this very much desirable mental or emotional state of pure

concentration can be reached; what might help learners to be motivated; whether all people are motivated in the same way; or how motivation can be sustained, etc.

Gass and Selinker (2008, p. 426) indicated that numerous studies have revealed that motivation is a predictor of language learning success. Nevertheless, although SLA scholars and researchers have always regarded motivation as one of the most important factors in FL education, probably because of the difficulty of measuring motivation through the positivistic methodologies and assessment tools imposed by the age of positivism, FL educational environments have neglected and overlooked this vital phenomenon. Ellis (2001, p. 36) admitted that despite the rich literature on motivation in general psychology, the matter has not been fully exploited in SLA. Researchers have been much concerned about the meaning or definition of the phenomenon, rather than the phenomenon itself; or whether it is motivation that produces success in SLA, or successful learning that enhances motivation, or both (Lightbown and Spada, 2001, p. 56). Additionally, motivation has been reviewed mostly as a condition that is expected to be provided and supported by the teacher rather than as a feeling that would be initiated, energised, and maintained by the learner. For instance, Girard (1977) stressed that motivating learners is an important part of the teacher's job. Likewise, Ur (1996, p. 279) advocated that learners are often motivated by teacher pressure. Similarly, Williams and Burden (1997, p. 121) proposed that motivating teachers means helping (support that is going to be provided by teacher trainers or other teachers) them to sustain interest and invest time and energy into putting in the necessary effort to achieve certain goals. It seems that the perspective has been the one that is top-down in nature, the one that assumes that motivation is extrinsically triggered or sourced. When approached from this view, motivating, for instance, each of forty students in a class that possess different characteristics and expectations would certainly sound senseless. In fact, Harmer (2001, p. 48) commented that faced with the different descriptions of learner types and styles, the teacher's task is overwhelmingly complex. In short, it has usually been assumed or inferred that motivating the student(s) is the task of the teacher(s). Even if we agree, it should not imply that teachers have the right and duty to act somehow in an officious and meddlesome way, which is a very objectionable and unfavourable attitude when evaluated from postmodern or humanistic perspectives. Indeed, more recent student-centred approaches explain that teachers' role is just to facilitate and assist students who autonomously progress in the self-directed processes of learning.

To repeat, the sources and types of motivation, particularly in SLA, have been proposed to determine the level of motivation. These sources and types are closely related to the needs, interests, skills, intelligence, beliefs, etc. of the learners and teachers. Wentzel and Wigfield (2009) provide an extensive collection of motivational theories and factors, most of which agree on the value of the individual in the process of motivation, and point to the importance of internal motives as the source of true motivation. Within the context of motivation, concepts such as autonomy versus control, self-regulation or determination versus other-regulation or determination, the hierarchies of needs and interests as well as the multiple intelligences have become popular topics of investigation. These domains will be briefly reviewed in the following sections; however, it would be useful once again to remind ourselves why psychology in general, and motivation in particular is so important for educational studies, and naturally for the present study as well. The psychological aspect of investigations is deeply rooted in the philosophical stance, which affects the perception, processing, and evaluation of data that determines not only the methodologies and techniques used but also the validity and reliability. For instance, motivation of the researcher, but most distinctively of the participants is a serious factor while the research is carried out, for instance, while collecting the data or applying the research tools. From the positivistic stance laboratory-like experiments and analytic extractions might seem quite satisfactory; however, from the naturalistic point of view, the famous quote of H.L. Mencken "For every complex problem there is an answer that is clear, simple, and wrong."[30] is very true. Therefore, the mental state and emotional mood of the participants, their beliefs, needs, and interests as well as the skills, goals, etc. they possess are undeniably significant for the reliability of their work and/or feedback. In the present study, the researcher naively assumes that the philosophical and psychological aspects of the educational research the researcher conducted have been considered and exploited in the most humanistic and postmodern way possible within the frames of the conditions of the day and the era. These will be further explained and discussed in the following chapters.

---

[30] http://www.searchquotes.com/quotation/For_every_complex_problem_there_is_an_answer/

2.2.2.1. The Hierarchy of Needs in Education

Reviewing Maslows's HN would be helpful to establish links with the general philosophy of the present study and the aspects that have been considered throughout. This is a well-known humanistic theory which emphasises motivation to develop one's full potential (Schunk, 2012, p. 351). Schunk advises that to understand people, researchers should not study animals but rather people who are psychologically functioning and attempting to be creative and to maximise their capabilities and potential; to which the researcher would add the critical thinking ability of human beings, and that researchers should not only study people but also study them in a way that a human would deserve to be investigated, for example, by naming them as "participants" first of all, rather than "subjects". The preference and tendency of the humanistic theorists is to understand people holistically by studying not only their behaviours and thoughts but also their feelings (Weiner, 1992).

According to Maslow, the needs play a crucial role in human motivation. These needs are hierarchically ordered from "physiological", "safety", "belongingness or love", and "esteem" to "self-actualisation", the former being more important than the latter. To put it another way, it would be unrealistic or not humanistic to expect students to be brilliant in school if, first of all, their physiological or safety needs were not met. In other words, the most vital things should come first. The same perspective can be adopted when regarding the expectations of an FL learner who would need to be respected, tolerated, understood, etc. as the essential requisites of the love principle in the pyramid of Maslow. Additionally, from a different dimension, when conceptualised according to the FLL/T context, the pyramid might be adapted, the researcher believes, in a more subject specific way, so that it reflects the basics of the field or topic. It will be helpful to examine Figure 2.2. by which the researcher will try to explain what he means.
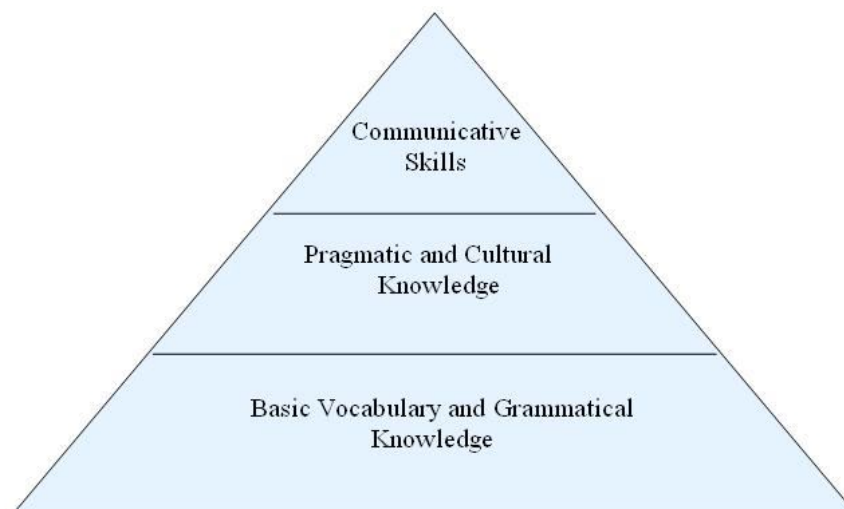
Figure 2.2. FL Subject Specific Pyramid

The pyramid presented in Figure 2.2. reveals some of the essentials of the FL field such as vocabulary and grammar that are necessary to begin to use a given FL; pragmatic and cultural elements that enable people to comprehend and adapt to the system(s) and tradition(s) of the target language; and the communicative skills that ultimately enhance the successful and harmonious combination of the first two dimensions and lead to meaningful and smooth interaction in L2. These dimensions should be attended to step by step and included in the agenda of FL learners in the given order; otherwise, the same inconsistencies, shortcomings, and conflicts that were indicated by Maslow's HN, in relation to the HN, are likely to appear. In other words, it would be quite unrealistic to expect students to develop and use their L2 communicative skills if they lack the basic vocabulary and grammatical knowledge, or if they are not aware of the pragmatic and cultural motives or differences of the target language. In sum, the candidates of competent and fluent L2 users will be those who have accomplished the first two steps of the pyramid successfully. The pyramid can be adopted and adapted for any aspect of a given subject so that it will comprise the fundamental hierarchies and principles in the sensible order. To set a more technical example, the researcher should suggest that it would be complete nonsense to ask a person to write, let us say, an academic essay without teaching the necessary academic words, grammatical structures, genre, etc.; or to prepare an audio and/or video document for practising some linguistic skills by the help of MS Office, before teaching him/her the Office program. However, these types of approaches and

applications occur very frequently in education. If the researcher may give an example from the FL field; FL teaching departments are within the umbrella of faculties of education that aim at training FL teachers. The general and major concentration and approach is to equip students with high level theoretical information and skills towards the implementation of the profession. Nevertheless, talking specifically according to his personal observations and particularly for his own department, the researcher can confidently state that neither the students nor the lecturers seem satisfied with the total education, a fact which stems from ignoring the principles of the HN, the researcher believes. The following analogy should further refine the explanation: we are all drivers (with the literary meaning) that use vehicles. Therefore, if it would be possible to establish a connection between vehicle drivers and prospective teachers (as drivers of the profession), then it would be possible to say that when driving a vehicle we have the fuel (which is primarily the L2 for an FL teacher), and that as professional drivers (lecturers) we teach our students how to drive the car (how to teach the L2) through some specific methods and techniques, etc. without much concern about the needs of our students. Therefore, we ignore the fact that the students do not have the "fuel" (linguistic competence), or that they cannot run properly in traffic because they are not aware of or do not know the rules of the traffic (pragmatic and cultural system of the L2). In this case, before properly teaching the L2 and ensuring that our students have reached a satisfying linguistic level or competence to go further, into the next dimension(s); insisting on teaching how to teach the L2, the researcher would comment, would not be a very humanistic or realistic approach.

That is why, before the subjects of the curriculum(s) or the beliefs and opinions of the teachers and authorities, as it has been illustrated in Figure 2.1., there is need to put the learner and learner's needs, beliefs, interests, and skills in the centre and to construct the curriculums and lessons accordingly. In the present study the researcher adopted a student-centred approach, in which the aim was to meet the needs of the students (to the extent it was possible) rather than to meet the syllabuses and curricula requirements of the educational programme. While doing this, the researcher considered the diversity in individual traits and preferred to employ a tolerant, constructive, and bottom-up approach that required the instructor to dynamically check the mood and opinions of the students, and also to think about the different intelligence types that individuals might possess.

2.2.2.2. The Multiple Intelligences in Education

The studies in cognitive psychology have raised the idea that intelligence is not a single but a multifaceted phenomenon, which has found reflection in Gardner's (1983, 1993, 1997) Theory of Multiple Intelligences. According to the MI theory, human beings have nine different intelligence types (musical-rhythmic, visual-spatial, verbal-linguistic, logical-mathematical, bodily-kinaesthetic, interpersonal, intrapersonal, naturalistic, and existential), some of which can be more dominant or stronger for some and weaker for others that need to be nurtured for more comprehensive development of the brain and humanistic education. Likewise, Sternberg (1997) postulated three different intelligences, namely analytical, creative, and practical, which explain the different reflections of human cognition and/or behaviour. Moreover, Goleman's (1996) emotional intelligence theory (EQ), as a counter and addition to the intelligence quotient (IQ), took the intelligence discussion to an expanded level by arguing that conventional IQ assumptions are too narrow to explain success in life, and that EQ might be a more significant and a stronger factor of all-round success, by making solid links with concepts of love and spirituality, and thus, bringing compassion and humanity into the matter. Even so, rather than creating dichotomies of importance or priority, or going deep into defining and explaining the intelligence types, it would be more useful to recognise and recall that human beings are complex creatures and so are their cognitive and emotional worlds, which should make it necessary to agree on and respect individual differences.

However, modern educational approaches tend to perceive the whole class as a "single big body", as if it were a person who was interested in and motivated by the same materials, procedures, aims, etc., and therefore, fixed programmes, course books, and resources are imposed on everyone that is in the classroom (Uzun, 2012a). Moreover, Uzun (2012b) criticised the fact that although the modern educational system does not deny the multiple intelligences, these are usually neglected since they would require "differentiated instruction" that would cause many problems in the current communal and collectivist tradition of "mass education". It seems that much in education is perceived, explained, and solved from the teachers' perspective, which in my opinion gives rise to a top-down approach that is not useful for the learning and development of individuals. Tomlinson (1999, p. 18) suggested that differentiated instruction is first and foremost good instruction, a view that recognises and supports individuality in learning. Nevertheless, the

deep rooted tradition of teaching "teaching methodologies" in the faculties of education (which is the case in Turkey specifically) has resulted in an oppressive and authoritative manner that exceedingly highlights the importance of the teacher in FL education, and misses the very vital aspects of the learner. It seems that there is need once again to refresh and restate our philosophies of education while dealing with the motivation and learning of individuals. The problem is whether we will support and strive for intrinsic motivation or be at the disposal of extrinsic motivation that will be ensured by means such as the instructor, the policy makers, or other tools of authoritative suppression. Brown (1994, p. 40) articulated as follows:

> "The consequence of such extrinsic motivators is that schools all too often teach students to play the "game" of pleasing teachers and authorities rather than developing an internalized thirst for knowledge and experience."

Therefore, it seems that rather than trying to "motivate the class" it would be a more beneficial and sustainable approach to try to "motivate the individual", in order to achieve a higher level of constructive motivation. This might be realised, for instance, by allowing learners to modify the fixed programme(s) and curriculum(s) that come from the authorities, and to organise their lessons and activities in a way that meets their own learning goals. There is no doubt that the implementation of such an approach would be quite challenging because of the limitations of traditional educational policies and settings. It would, however, be a good example for student-centred learning in the postmodernist view where principles such as distance education, lifelong learning, differentiated instruction, and individualised and custom activities are enhanced and facilitated by the developments in technology and adaptations of learning habits of the new generation. Indeed, globalisation assisted by the Internet encourages education to progress towards this tendency. Custom culture in general and the tendencies of "self" determination, evaluation, satisfaction, etc. of the new age personalities have given rise to innovative theories that will be touched on in the following section.

2.2.2.3. Self-Determination in Education

Most students (if not all) want to prolong their education at a university, and therefore, they study hard for this and in the end they achieve their wish. However, as soon as they enter routine student life something suddenly happens, and they start not wanting to attend classes at university. Indeed, this example should not be limited only to university level, but expanded to all sections of both formal and informal education. Incidentally, learning becomes an external imposition when schooling begins, and the excitement of mastering new skills gradually wears off (Csikszentmihalyi, 1990, p. 47). So what happens that creates this ambiguity? In the current section the researcher will try to discuss this issue and provide some explanations by the help of the *Self-Determination Theory* (SDT) of E.L. Deci and R.M. Ryan to reveal the causes of the mentioned problem.

The modern educational policies follow a "science for science" pattern rather than "science for humanity". Therefore, they recklessly manipulate personalities, skills, interests, etc. in accordance with the necessities of science, that is to say, verification and/or falsification of hypotheses and theories. Nevertheless, students have their own simple expectations and goals that need to be granted and considered seriously. Bandura (1997, 2006) remarked that outcome expectations or beliefs related to the anticipated outcomes of certain actions are important. This is because students usually engage in activities that they believe will contribute positively to the outcomes, and avoid actions that they believe may not help much (Schunk and Pajares, 2009, p. 37). Having taken the problem of modern education from this aspect, it becomes possible to comment that many times learners participate in actions not with their free will, but because their teachers ask them to get involved, as the goals, expectations, outcomes, etc. of a given educational programme are anticipated and set by the authorities for the students, rather than by the learners themselves. This is enabled by a "system of reward or punishment" that puts the students in a behaviouristic condition of Pavlov (1927). In other words, students behave in a way that triggers another condition (but for the teacher this time), namely rewarding or punishing. This is not very different from giving a piece of sugar to a monkey because it has realised a desired action. On the other hand, the feelings that the monkey experiences during the realisation of a certain action, and others it feels during or after receiving the reward or punishment are very vague.

The SDT (Deci and Ryan, 2000; Ryan and Deci, 2000a) provides remarkable insights about human motivation, comprising aspects of intrinsic and extrinsic motivation as well as of autonomy, competence, internalisation, etc. that are interconnected concepts and directly relevant to the present study. According to SDT, human beings are inherently endowed with a tendency to learn and develop as they engage not only with their outer environments, but also with their inner world of drives, needs, and experiences (Ryan and Deci, 2009, p. 171). Nevertheless, as previously mentioned, rather than emphasising and focusing on this natural inheritance of human beings, educational applications and policies as well as some earlier discussed philosophies and theories of learning, deliberately attempt to replace it with external control through monitoring, evaluation, or artificial rewards and punishments on the way to foster learning. It would not be wrong to comment that this situation is caused by the authorities, "educational gurus", or whoever is responsible for the implementation of education. This attitude of the authorities, which is a matter of preference rather than of necessity or obligation, creates a scene in which learning becomes a chore rather than a joy. Inevitably, the situation is not a pleasant one for anyone.

Ryan and Brown (2005) explained that schools provide structures and controls, the intensity of which has increased over time, with strong emphasis on educational accountability and high-stakes testing. These external strategies of control influence, often negatively, the intrinsic motivation and internalisation of the students as well as their learning, performance, and well-being. To put it in another way, in the modern understanding motivation is intended to be externally assured (who knows for what reason if not) because of behaviouristic traditions and suppressing habits. This is a very serious problem that should be criticised first and foremost. Obviously, the liberation of education encounters resistance which is also the case with the bottom-up approaches against the top-down. Interestingly, although the literature contains a great amount of evidence to support the idea that intrinsic motivation is more effective than extrinsic motivation (e.g. Ryan and Deci, 2000b; Lavigne and Vallerand, 2010; Gille et al., 2012; Schaffner et al., 2013; Busse and Walter, 2013; etc.), and that the extrinsic means of motivation (i.e. rules, rewards/punishments, tests, money, deadlines, etc.) have negative effects on intrinsic motivation (e.g. Deci, 1971; Ryan et al., 1983; Grolnick and Ryan, 1987; Deci et al., 1999), the fact is that these still tend to be used widely, which is incomprehensible. According to Deci and Ryan (1980), when rewards are used to prompt activities, people

lose their experience of autonomy in doing it, perceiving the locus of causality for the behaviour to be external; which is the common case in schools, where evaluations, social pressure, surveillance, and other extrinsic motivators are used so often. Unfortunately, formal educational policies tend to be so top-down infected that they unbendingly insist on struggling for control and power rather than on being at the service of the learners or providing room for autonomy.

Moreover, there is considerable evidence in the literature that autonomy has a positive influence on intrinsic motivation, but once again, education seems to be under the control of authority rather than of autonomy, in an incomprehensibly stubborn way. According to the SDT, providing people with an opportunity for choice results in an internal perceived locus of causality and enhanced intrinsic motivation, because the need for autonomy is satisfied. Research has revealed that providing students with choice increases intrinsic motivation (e.g. Reeve et al., 2003; Bao and Lam, 2008; Patall et al., 2008). Deci et al. (1981) showed that in classrooms where teachers were more autonomy-supportive, students tended to become more intrinsically motivated, self-confident, and psychologically in better condition; whereas in classrooms where teachers were more controlling, students tended to lose intrinsic motivation and self-confidence, and their psychological mood deteriorated. Tsai et al. (2008) investigated students' experience of interest and perceived autonomy support or control by teachers during classes of multiple subjects, and concluded the following:

> "Perceived teacher autonomy support and control during lessons, as well as individual differences in interest, predicted the students' interest experiences in the classroom, showing that for any given student, an autonomy supportive atmosphere enhanced interest relative to his or her own baseline, whereas controlling teacher behaviour undermined it." (Deci and Ryan, 2009, p. 175)

Likewise, Kage and Namiki (1990) concluded that students who learned in order to take tests that would count toward the semester grade (controlling condition) rather than to take tests that were used only to provide feedback (autonomy supportive condition), were less intrinsically motivated, and ultimately, performed less well in the final examinations. To summarise, autonomy supportive settings, both at home and at school, predict students' engagements in schoolwork, that is, greater conceptual learning and psychological well-

being. In sum, research proposes that attempts to control students' performance, efforts, etc., even through positive feedback and attitudes, can undermine their sense of autonomy, and thus, decrease their interest and intrinsic motivation. It should also be indicated that the least autonomous is "externally regulated", doing something, for instance, in order to meet the deadline, or satisfy the teacher, or receive a reward or high mark, etc.

To review, motivation is directly related to any educational research and certainly to the present study; and intrinsic motivation would go hand in hand with autonomy, also considering the needs of the learners, multiple intelligences, and individual differences as a basic characteristic of bottom-up approaches in contrast to top-down approaches that insist on external motivation and motivators as well as on pressure by authority. Educational activities that intrinsically motivate individuals are enjoyable since they satisfy deep psychological needs to feel competence and autonomy. Therefore, when the needs of the learners are met, they learn, create, and develop as a side benefit of experiencing a high level of enjoyment and satisfaction. This condition is reflected in Csikszentmihalyi's TF in the following section.

2.2.2.4. Flow and the Present Study

The concept of flow has been proposed by Csikszentmihalyi (1990) to explain and describe the optimal positive intrinsic state of the human being(s) that triggers desires to be involved in and continue certain action(s), not because the individual has to but because s/he wants to. Csikszentmihalyi (1990, p. 4) explains flow as follows:

> "... flow- the state in which people are so involved in an activity that nothing else seems to matter; the experience itself is so enjoyable that people will do it even at great cost, for the sheer sake of doing it."

The present definition of flow has been generated from the quest to find out *how individuals felt when they most enjoyed themselves*. This quest has very important implications for the field of education since learning has been always considered as a strong and natural propensity of mankind that triggers the acquisition and assimilation of knowledge, culture, etc. (e.g. Ryan, 1995; Rogoff, 2003; Ryan and Deci, 2009), and actually what is realised through education is learning to a great extent. Nonetheless, Ryan

and Deci (2009, p. 171) remarked that especially at schools, learning becomes a chore rather than a joy, which contradicts with that natural propensity of human beings. It should be understood that normally everyone is bound to and willing to learn, and thus, be involved in, contribute to, and collaborate with any particular opportunity that will lead to and result in learning. The findings of the theory of Csikszentmihalyi have significant implications for education when regarded and evaluated from this perspective that every human being is equipped with the natural instinct and desire to learn, and this condition could be energised by taking advantage of certain principles. He proposed that the psychological moods of people should be traced to reveal and comprehend what makes people happy and committed and why (Nakamura and Csikszentmihalyi, 2002). Once this quest is revealed, it will be easier for the educational environments to satisfy individuals and carry out higher quality actions. Schools, as places where education is formally carried out, should not be places to skip because of distress, suffering, or any other kind of unpleasant experience, but rather places where that natural instinct of people is supported and realised through enjoyable actions which also will nurture some more complex aspects of human psychologies.

Csikszentmihalyi (1990, p.1) advanced that regardless of all the stupendous scientific knowledge that the world has accumulated, people end up feeling that their lives have been wasted, and that their years have been spent in anxiety and boredom instead of being filled with happiness and satisfaction. Whether because of the responsibilities of their schooling lives or of other conditions, people somehow pursue goals that in the end do not make them happy. What is more, no progress at all has been made in how to attain that blessed condition, namely learning. Overall, humanity has failed not only in becoming happy but also in getting pleasure from learning and fully exploiting the learning condition, which might be seen as the initiating point of the TF. Notwithstanding facts, not many studies or theories have concentrated on the spiritual or sensitive domains of the human state(s), and no theory that focuses on emotions and feelings has become popular or been investigated in depth, just as qualitative research has been ignored for quite a long time in the history of modern science. Likewise, as it has been shown and reviewed so far, the theories of learning have been organised around either the behaviours or cognitions of human beings or both as reflected in the constructivist approaches. There are no concepts or theories, let us say, named as "feelingism" or "emotionism" for instance; nor therefore, "cognitive emotionism" or "social emotionism", and so forth. In spite of this, unlike most

psychological theories, the TF focuses directly on the feelings of human beings or on their mood and well-being rather than on their cognitive abilities or behaviours. For instance, the TF indicates that learning might occur as a side effect when certain feelings of individuals are stimulated, so that they experience pleasure and enjoyment. To put it in another way, the TF draws attention to the drives that create and maintain autonomy and willingness. The flow concept has received the interest of psychologists who study happiness, life satisfaction, and intrinsic motivation, but it would be possible to argue that it has been undermined by modern pedagogues. One reason of this might be related to the theoretical and methodological problems concerning flow research (Engeser and Rheinberg, 2008).

According to Csikszentmihalyi (1990) when people feel in control of life and that it makes sense, there is nothing else left to desire. In other words, when people learn to transform jobs into flow generating activities; or when they discover ways of making their relationships more enjoyable; or when they manage to enjoy life despite adversity, the optimal condition of emotional self-realisation and satisfaction occurs. Similarly, when students become convinced that the things they do or learn at school will be useful; or when they feel in control of their activities and are allowed to opt for the time, place, or way of completing the given tasks, they will be more willing to maintain their intrinsic motivation and to sustain interest in education. In this sense, the TF attempts to explain why some activities can be quite enjoyable while others can be very boring; and to find out the conditions that make people enjoy themselves in intense concentration that makes them lose self-consciousness and the sense of time. Notwithstanding the fact that some actions might demand much more energy and effort by individuals or can tire them and create pressure (such as playing a game, or brainstorming in a concentration camp), still these could be less boring or more enjoyable than those which seem more attractive at first glance (such as sitting at home, or vacationing at a fancy resort). The TF is in parallel with the SDT in relation to external rewards or goals in that these are a source of distraction rather than motivation. For instance, a teenager might play football all day at the cost of being hurt, scolded by his parents, teachers, etc., and in the end he might become a professional by signing a contract for a club. After that moment the player might be so obsessed with his image among the fans, or future at the club, or beating the opponents, etc. that the joy of playing football might be ruined and even disappear. Going to work out sessions might be quite boring, or training camps can feel like periods of time when he has

to stay apart from family, relatives, friends, etc. Therefore, playing football will no longer be a pleasant activity for the person to do all day. To put it in another way, when a student becomes concerned about extrinsic goals such as scoring highly in exams, receiving praise from the teacher, or wanting to impress the classmates, etc. then learning becomes a distraction rather than a joy. In the present study the researcher tried as much as it was possible to avoid the factors that might create extrinsic objectives for the students, especially by assuring them that grading would not be a problem or serious concern for them. In the present study, through all its procedures, the researcher consciously and deliberately attempted to direct the attention of the participants towards learning, development of skills, and improvement of autonomy.

Csikszentmihalyi explained that flow activities lead to discovery and growth facilitated by simple goals, clarified feedback, renewed involvement with life, learning of new skills, concentration, control, and provision of enjoyable experiences. It was further described that individuals who have autotelic personalities are more inclined to experience flow because they seem to enjoy situations that people would usually find unbearable. Flow is explained by the balance of challenges and skills (Csikszentmihalyi, 1990; Susan Jackson and Csikszentmihalyi, 1999) as in Figure 2.3.
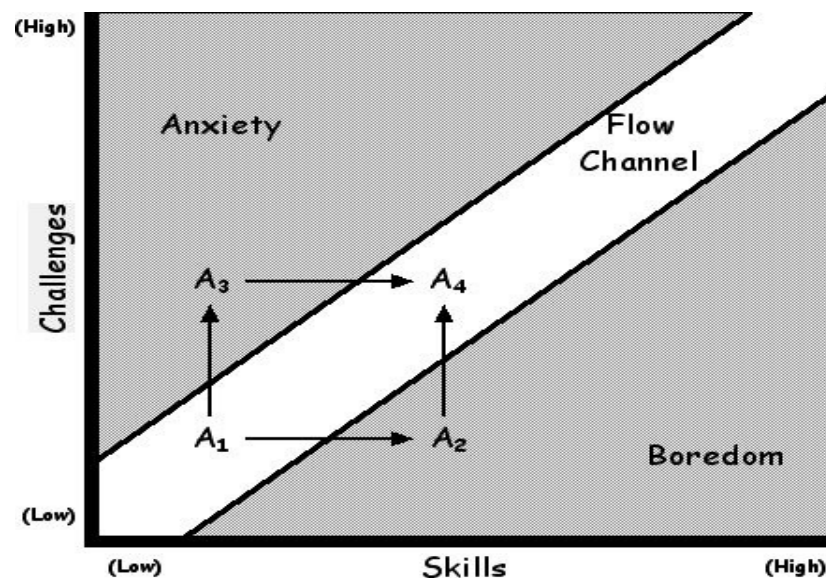
Figure 2.3. The Flow Chart (adopted from Csikszentmihalyi, 1990, p. 74)

As it might be observed in Figure 2.3., when the challenges that people face are high and their skills are low, it is most likely that this will result in anxiety whereas when the skills are high but challenges are low, the condition will result in boredom. Therefore, it is suggested that for optimal flow experience there is need of balance between these two factors. The researcher will try to explain the matter by assuming that "A" in the chart is an FL learner, and that the figure represents the process of FL learning. Therefore, when an ordinary learner first starts learning an FL (A1), s/he has no particular skills and the challenge should not be more than learning the letters of the alphabet and how these are pronounced, as a first task. This might seem to be a very easy job, but A would most probably enjoy it because the difficulty of the task is right in line with the ability of the learner. Nevertheless, as time advances, A will naturally learn some vocabulary, basic expressions, or grammatical rules, etc. Therefore, singing the ABC Song will not be a flow generating activity any longer, and thus, A will be bored (A2) since his skills are much higher than the challenge requires; or A might be confronted with the upper levels of the FL course which will ask him to make complex sentences with the words he has learned in the correct tense, which might exceed the present skills of the learner, and thus, A might feel anxiety because the challenge is too high to cope with his present skills (A3). In this case, A will have to spend some time for practice and study, which will put him back in the flow channel (A4). Ultimately, A will be excited by his progress in the FL and the self-evaluation will satisfy him, so that he will continue to discover and learn more and to improve in the FL.

Certainly, the task of learning an FL is much more complex than that and so should be the condition(s) of flow in education. However, the idea of TF seems reasonable when we take notice of our students who spend hours on their computers playing games, surfing the Internet, or doing other things. In short, new generation learners enjoy spending time with technology and improving their skills in this area. Therefore, taking advantage of this and integrating our courses into technology or computer assisted activities rather than integrating technology into our courses deserves closer consideration and investigation. The TF has inspired many researchers whose studies investigated the relationship between technology enhanced (language) learning activities and flow experience (e.g. Egbert, 2003; Hsu and Lu, 2004; Franciosi, 2011; van Schaik et al., 2012; Young et al. 2012). To sum up, the TF gives us a significant insight related to the emotional states of people that provide clues about what motivates individuals, how they feel when they are at the highest possible

motivational level, and the activities that attract them to get involved by their own will and to prolong these in deep engagement, concentration, and loss of self-consciousness. The direct relation of TF with education and the present study will be further examined and explained in the educational background (section 2.3) of the present study.

2.2.3. A Summary of the Psychological Ground and its Relation to the Study

As a general review and conclusion of the philosophical (section 2.1) and psychological (section 2.2) backgrounds to the current study it would be useful to remind ourselves and once again stress that while on the one hand philosophy might be seen as the basis of any kind of conscious action or education that leads towards positivistic and/or naturalistic tradition and applications; on the other hand, psychology similarly might be seen as the basis and probably the most important element of human nature, chemistry, and aura. Therefore, philosophy and psychology are two inseparable fields to consider when dealing with education and human being(s). Philosophy determines the path to follow and coordinates the functions and actions of the whole process towards a certain target and outcome, while psychology examines and concentrates on the internal and external condition(s) of the physical bodies that are to realise the commands, procedures, instructions, etc. proposed and postulated by the basics of the set philosophy. The researches concerning topics such as hierarchy of needs, multiple intelligences, motivation, etc. are a sine qua non for social studies, particularly when examining and observing human beings, because it would be absolutely naïve to claim that the results or outcomes of the experimental studies would purely and robustly report rigorous laboratory-like conditions that scientific studies provide and present. Moreover, it is a fact that a human being is more than a "subject", and each human being is unique not only physically but also spiritually, and thus, certain packages of input and procedures that empirical attempts assert to be objective might not work same and/or have affect for everyone. Therefore, any study of social sciences but especially educational ones have no other choice than addressing and securing the psychological aspect in order to set in-depth analyses before reaching conclusions of whatever type they be.

2.3. Educational Background

The educational background of any FL study should address at least two aspects as a research focus: 1) a component of the language that is being studied such as vocabulary, grammar, the four skills, pragmatic awareness, cultural elements, etc., and 2) the relationships of these components with conditions such as learning/teaching methodologies, techniques, or strategies; the use of technology or other facilities in the improvement of these components; or the philosophical and psychological matters that affect conditions and/or components of learning/teaching an FL. Having said this, the present study takes vocabulary as a basic component, and investigates the potentials that the artefacts of the era offer in support of developing FL vocabulary. Therefore, English academic vocabulary acquisition, retention, and practice are researched within the domain of CALL. The present section will focus on reviewing the literature related to FL vocabulary acquisition and retention as well as the related methodologies and techniques employed for this purpose, and on the use of technology in FL learning.

2.3.1. FL Vocabulary Acquisition and Retention

Vocabulary has always been considered as one of the most significant and basic components of a language. The fact is that without vocabulary, (physically) activating a language would be impossible. Therefore, it seems to be a good idea to adopt vocabulary acquisition and retention as a subject for an FL study. Indeed, the field is so intensely investigated that it would be wise to narrow the scope as the literature contains a huge amount of data and work on different aspects of vocabulary. For this reason, both because the study took place at university level and the participants' natural vocabulary need was mostly academic (required by their courses), the researcher focused on the acquisition and retention of academic English vocabulary that was studied and practised by the university students for a specific period of time.

The literature on lexical issues has grown so big that it is no longer possible to comment that vocabulary has been a neglected component of FL education. Thousands of studies that concentrate on various aspects of vocabulary such as teaching (e.g. Fowle, 2002; Laufer et al., 2005; Dilek and Yürük, 2012; Uzun, 2013a; Kissling, 2013), learning (e.g. Laufer, 1998; Leeke and Shaw, 2000; deGroot, 2006; Barcroft, 2007; McCrostie, 2007; Ghazal, 2007; Walters and Bozkurt, 2009;), retention (e.g. Hulstijn and Laufer,

2001; Uzun, 2011; Kuo and Ho, 2012; Chiu and Liu, 2013; Lu, 2013), assessment (e.g. Hazenberg and Hulstijn, 1996; Laufer and Nation, 1999; Schmitt et al., 2001; Meara and Alcoy, 2010;), interlingual or intralingual relationships (e.g. Elston-Güttler, 2005; Paribakht, 2005; Zhang and Koda, 2012; Shamsudin et al., 2013; Akpinar, 2013), interlexical or intralexical connections (e.g. Schmitt and Meara, 1997; Hell and Mahn, 1997; Lotto and deGroot, 1998; deGroot and Keijzer, 2000; Schneider et al., 2002; Bagger Nissen and Henriksen, 2006; Fitzpatrick, 2007; Zyzik and Azevedo, 2009), and computer/technology assisted or game based opportunities (e.g. Groot, 2000; Grace, 2000; Ma and Kelly, 2006; Yip and Kwan, 2006; Nakata, 2008; Ranalli, 2008, 2013; Wong and Looi, 2010; Yanguas, 2012; Smith et al., 2013; Rosman et al., 2013), etc. have been recorded. These researches have not only heightened awareness related to the problems in linguistic and lexical (both incidental and intentional) development of FL learners but also provided interesting evidence for unique and generalisable cases and conditions that illuminate the path of practitioners and also scholars.

Although only a few have concentrated directly on the applied linguistics field (Flowerdew, 2002), corpus based studies (e.g. West, 1953; Xue and Nation, 1984; Coxhead, 2000; Flowerdew, 2004, 2005; Flowerdew, 2006; Gardner, 2007; Alderson, 2007; Shin and Nation, 2007; Allan, 2009; Suzuki et al., 2012; Zou and Peng, 2013), have contributed much, especially to the vocabulary area, especially by providing FL professionals and learners with ready-to-use lists of words that are worth focusing on, as well as by evaluating and validating these as reliable tools to use. For instance, despite being criticised for its size and age, West's (1953) General Service List (GSL), which comprises at least 75% (reported to be about 80% by Cobb, n.d.) of any written and/or spoken material in English, presents the most widely used 2000 words that should certainly give serious reasons for educators and students to concentrate on. Similarly, despite being criticised for its validity because of ignoring homographs (Ming-Tzu and Nation, 2004), Coxhead's (2000) Academic Words List (AWL), which has been reported (Coxhead and Nation, 2001) to cover up to 10% of the academic language of English, contains 570 word families that if known can be useful to better understand the courses at university level. Altogether, the 2000 words of the GSL and 570 of the AWL would account for approximately 85% (reported to be about 90% by Cobb, ibid.) of the total lexical load for, or when mastered, comprehension of, university students. Actually, the literature contains significant evidence in support of the GSL and AWL. Chung and Nation (2003) proposed

that most words in academic texts are either from the GSL or AWL. Likewise, Cobb and Hurst (2004) clarified that knowledge of AWL as well as GSL words was necessary in comprehending academic texts in English. Additionally, in order to reveal the use of the AWL, specifically for the applied linguistics field, Vongpumivitch et al. (2009) examined the frequency of the AWL words by the help of a corpus of articles published in five applied linguistics journals. Ultimately, results indicated that the AWL vocabulary plays an important role in this field. That is why recently, special effort has been devoted to teaching academic words (e.g. Horst et al., 2005; Huntley, 2005; Kaur and Hegelheimer, 2005; Burgmeier and Zimmerman, 2007; Wells, 2007; Coxhead 2008; Coxhead, 2011).

Being understood when we speak is important, especially for FL teachers and students. Therefore, promoting the academic vocabulary knowledge of undergraduate students should contribute to the quality and quantity of involvement in group discussions, thereby improving not only general speech intelligibility but also the affective domains. In other words, all-around academic communication necessitates knowing human psychology and also academic words. In this sense, it would be useful to define what knowing a word means. One aspect might be related to the pronunciation and perception of pronunciation, particularly when it comes to spoken communication. For instance, Murphy and Kandil (2004) maintained that for non-native English speakers, it is important to devote attention to the connections between body language and the rhythmic dimensions of oral communication. On the other hand, Thornbury (2005, p. 15) stated that at the most basic level, knowing a word involves knowing its form and its meaning. Notwithstanding different views on this issue (see e.g. Richards, 1976; Schmitt and Meara, 1997; Read, 2004; Zareva, 2005; Hancioglu and Eldridge, 2007; etc.), the researcher will hereby concur with Nation (2001) that for an FL learner to know a word includes three facets: the word's "form", "meaning", and "use".

As the concept of 'knowing a word' is set, another question might arise related to the investigation of the total vocabulary knowledge that individuals possess. While evaluating the depth and breadth of learners' word knowledge, researchers use measurements that concentrate on the assessment of specific aspects of vocabulary and knowledge such as receptive and/or productive, active and/or passive vocabulary knowledge. Therefore, it is possible to review that except for the unconventional approach of Meara and Alcoy (2010) who took the methods of ecologists to measure animal populations as a model and

proposed this for estimating productive vocabulary size, not only the knowledge but also the retention issue is evaluated through the breadth vs. depth, and receptive vs. productive paradigms. Cervatiuc (2007) summarised the scientifically proven or popular styles of tests as follows:

Receptive Vocabulary Breadth Tools:

The Vocabulary Level Tests- the receptive version (Nation, 2001; Schmitt, 2000)

The Eurocentres Vocabulary Size Test (Meara and Jones, 1990)

The Webster Third Vocabulary Test (Goulden, Nation, and Read, 1990)

Productive Vocabulary Breadth Tool:

The Vocabulary Level Tests- the productive version (Laufer and Nation, 1995)

Receptive Vocabulary Depth Tool:

The Word-Associate Test (Read, 1993)

Productive Vocabulary Depth Tools:

Vocabulary Knowledge Scale (Paribakht and Wesche, 1993)

The Web VocabProfiler (Cobb, n.d.) in conjunction with the Academic Writing Standard (Morris and Cobb, 2004)

The results that are cultivated from these types of tools and measurements are used to comment on and determine the total words that are acquired and/or retained in specific sequences of actions, procedures, and time periods. Studies that research FL vocabulary acquisition and retention usually merge into memory (i.e. short-term and long-term) investigations, which are concerned predominantly with the cognitive dimensions such as *depth of processing* (e.g. Craik and Lockhart, 1972) or *elaboration* as an alternative concept. It is generally agreed that retention of new words depends on the quality and quantity of attention that individuals pay while learning them as well as on the incidental and/or intentional acquisition methodologies. According to cognitive psychologists, more deeply processed (involving existing and new lexical knowledge together with rich scaffolding and comparison and contrast opportunities) or elaborated lexical information will lead to better retention results than processing new words less elaborately, as also suggested by the *Involvement Load Hypothesis* (e.g. Hulstijn and Laufer, 2001). Additionally, Carter and McCarthy (1991, p. 13) advanced that the more opportunities that can be found for formal transfer between foreign and mother-tongue words, the better the

chances for retention. The memorisation and retention matters have also been interconnected with the learning strategies (see e.g. O'Malley and Chamot, 1990; Huckin et al., 1993; Pressley et al., 1982) such as metacognitive, cognitive, social, affective, etc. that are developed by learners. Schmitt (1997, pp. 199-200) informed us that the interest in language strategies began in the 1970s, as part of the movement away from a predominantly teaching-oriented perspective, to one which included interest in how the actions of learners might affect their acquisitions.

The wise saying of Confucius "I see and I forget; I hear and I remember; I do and I understand.", or similarly the Chinese proverb "Tell me and I'll forget; show me and I may remember; involve me and I'll understand.", or another version attributed to Benjamin Franklin, "Tell me and I forget; teach me and I may remember; involve me and I learn." emphasise the philosophy that puts the learner in the centre and gives him/her primacy in education. Moreover, the *Learning Pyramid* attributed to the NTL Institute of Applied Behavioural Science Laboratories, Bethel, Maine, USA which was adapted from the original work of Dale (1954, p. 43) and improved later suggests that there are various ways that learners can engage in which will help them to learn information at various rates of retention. The pyramid depicts the approximate learning retention percentages depending on the learning mode, and indicates that the highest percentage of retention occurs in the active involvement methods as illustrated in Figure 2.4.
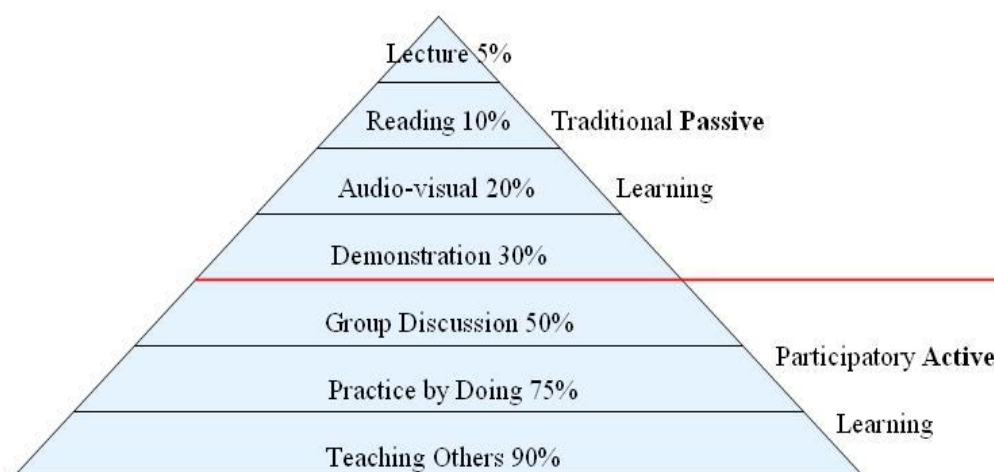
Figure 2.4. The Learning Pyramid and Average Student Retention Rates

This approach created interest in understanding how individuals manage their own learning and use of knowledge that led to concepts such as autonomous and lifelong learning, which actually have become hot topics of postmodern understandings. Inevitably, addressing all these facets in academic studies and communication would be a positive asset particularly in face to face correspondence; however, in more recent digital communication tendencies of the ICT age such as synchronous and asynchronous types of message conveyance, FL communications as well as incidences of vocabulary learning seem to necessitate the consideration of different dimensions of human actions, cognitions, emotions, and constructions. In the following sections the researcher will delve into these by comparing and/or contrasting the traditional FL learning methodologies and habits, and the most recent ones that are blended with innovative technologies.

2.3.2. Modern Approaches to FL (Vocabulary) Learning

The 19th and 20th centuries have been the periods in which "teaching methodologies" have dominated the views and studies carried out in the field of FL education. Later, some psychological and philosophical domains such as learning strategies and styles, multiple intelligences, individual needs, beliefs, attitudes, and opinions, etc. have been taken to the spotlight; however these have been neglected or abused somehow, perhaps because the principles of these contradicted the positivistic, authoritative, and top-down approaches, or because of the difficulties in addressing and implementing these principles in real life classrooms. The fashion was to create and propose ways by which FL would be best "taught", and in accordance, the classes were taught strictly by the principles, materials, techniques, etc. of the proposed method or strategy regardless of the learner or of learning differences. For instance, vocabulary was handled by memorisation and repetition of bilingual equation lists, or immersing learners in listening and speaking activities that contained unknown words, or organising the vocabulary around topics, or teaching specific words in clusters, etc., imposed on every individual learner in a group as if these were like broad spectrum antibiotics to cure an illness or solve the problem. Naturally, the research that emerged from these methods and approaches to FL education reflected the paradigms of the philosophy that underlay the complete set of actions and understandings; and seems to have been affected by the prevailing physical conditions, that is, the population of the classrooms, equipment available to teachers and learners, the course books and other

materials, etc. as well as the tendencies, beliefs, attitudes, knowledge, etc. of mostly the teachers and authorities.

The modern approaches to FL education and vocabulary development, as previously mentioned, usually focus on matters from the positivistic paradigm, and thus, are inclined to employing a single, general language teaching method for all the elements of a language such as vocabulary acquisition, learning of the grammar, pragmatic competence, cultural awareness, four skills, etc. In other words, it seems as if language teaching methods stand as certain formulas or algorithms that are assumed to be generalizable and applicable to all the processes and facets in language education. In parallel, most research seeks to find statistical and generalizable evidence for verification or falsification of questions that review problems from the perspectives of teachers and scholars rather than of the learners. Practitioners or researchers, who have been introduced with the methods in fashion, attempt to apply the principles of these in classrooms that are very much in accordance with the philosophical view and beliefs of the proposer, and thus, seem theoretically sensible, but do not meet or comprise the broad expectancies or characteristics of every student. This is a noteworthy point because it ignores the diversity in classrooms, and contributes to "the gap between theory and practice". The attempt to install and activate the theoretical beliefs or practical experiences of particular parties in every classroom as generalizable formula seems to be quite a synthetic approach to education. The same could be postulated for vocabulary learning and/or teaching methods (VL/TM hereafter). Various VL/TM, both explicit and implicit, such as using word- or mind-mapping, mnemonics, bilingual equation translation, direct learning or memorisation, teaching in context, keeping vocabulary notebooks, etc. have been investigated for their use and effect on learning and/or retention, all of which have been proven to be useful to some degree. However, it would still be hard to advocate that the use of these or training students in these have created the desired results. The problem, in my opinion, lies in the philosophy once again. The authorities need to realise that these techniques of memorising or learning words are not methods. They are the individual strategies of the learners. Therefore, rather than attempting to generalise these and making them as tools of teaching, it might be better to allow and help students to develop their own techniques and strategies in the most creative way that is possible. Once again, learners suffer from the philosophy that makes them slaves by making them addicted to "being given fish", rather than liberating them by facilitating them in "learning to fish". Indeed, this very general approach is employed not

only for vocabulary acquisition, but for all applications in modern education. That is why it should be stressed that VL/TM should be at the service of the students, functioning as their tools during their endeavours of learning; rather than as tools of creating frames and drawing their path. One should see the truth that there is not one path but many paths.

Along with the discussions related to the depth versus breadth of knowledge (e.g. Nagy and Herman, 1987; Wesche and Paribakht, 1996; Ehsanzadeh, 2012; Kieffer and Lesaux, 2012; Hatami and Tavakoli, 2013), and knowledge of receptive versus productive vocabulary (e.g. Laufer and Nation, 1999; Rott, 1999; Meara and Fitzpatrick, 2000; Mondria and Wiersma, 2002; Webb, 2005, 2008; Zheng, 2009, 2012; Read, 2013) as well as the issues of reliability and validity of the instruments being used and the authenticity or originality of the materials, activities, and instruction; much debate has been allocated to the size of vocabulary (e.g. Meara and Jones, 1988; Nation, 1993; Akbarian, 2010; Llach, 2012; Waldvogel, 2013) that FL learners of different levels possess or need to know in order to survive in given linguistic conditions or environments. Notwithstanding efforts in the mentioned areas, it would be possible to comment that there are few data that deal with the problems from a different perspective, that is, from the opposite philosophical stance, which could be the position of the learner as opposed to the teacher's, or the naturalist's as opposed to the positivist's. It is therefore possible to observe and conclude that the literature contains abundant information on the specific pole, which is the "top" but certainly not on the "bottom". Additionally, one should be reminded that throughout the history of FL education, most language teaching methods have paid relatively little attention to vocabulary (Zimmerman, 2000), and that although the importance of lexis has been always recognised in language learning, it has experienced sharp fluctuations, sometimes by being taken as a central and honorary element, and sometimes substantially undermined (see Espinosa, 2003 for a review of the role of vocabulary within the FLL/T history), but in each case under the control and in service of the authorities who decide for the best for the learners. To put it in another way, the authorities have been always in charge of the learners and of learning, words to be taught, techniques and strategies to be used, etc. Even if it could be accepted that much has been explained and clarified from the teaching side of the spectrum, it could be still countered or speculated that the accumulated information is mostly totalitarian and summative rather than formative, and thus concentrates on specific aspects, results, or effects, and misses very important clues, facts,

or factors in the processes of education, which could be both formal or personal, especially concerning the students.

The modern approaches to FL education usually define certain processes, programmes, curriculums, textbooks and materials, assessment intervals, types, criteria, etc. that also guide and determine success or failure according to the norms of the paradigm of these. For example, a certain number of students are grouped and installed in classrooms where they are expected to experience everything in a similar way, or to react similarly to every exposure of the top; to follow the procedures in a similar, if not in the same, way by the end of which they will benefit similarly from the whole process. More specifically explained, Student A in Class A from Country/City A will be given a certain course book and asked to read and study the content in the order that the curriculum or the course book urges. The curriculum is not interested in whether the content is of interest to Student A because it has been already verified and validated by scientific research that has been carried out in Country/City B by the help of Student B in Class B. Certainly, the intention of Student B is not to be a decision maker for Student A, but this is how the authority interprets his/her results, and decides that they be also for Student A. Nevertheless, one should bear in mind that Student B might have become successful in learning and using certain words from his/her course book, or interested in reading a text placed there just because of the agenda or hot topic(s) of the daily conversations and discussions in Country/City B, but which might not be the case in Country/City A at all. To explain further, regardless of the genders of Student A and Student B, their classes, or countries; Student B might be a positivist-minded person who comprehends things in a certain order and analytically investigates the local problems or forwarded tasks, whereas Student A might be a naturalist-minded person who prefers to work with things in a mixed order and to concentrate on overall benefit of or reason for the problems or tasks s/he meets by involving his/her subjective initiations and intuitions. This is very natural and understandable when we think of people who like to have their meals in the order given (i.e. starter-soup-main course and salad-dessert), and people who like to have a little bit of everything at the same time, or to start from the dessert for example. Additionally, some people prefer to eat vegetables or not to eat meat; which should be respected and also applied to classrooms with different preferences, likes and dislikes of the learners by presenting them with diversified materials and allowing them to work on different tasks and exercises. Moreover, some people prefer to use their fingers instead of spoons and

forks while eating, or for eating some of the things in the meal. Could they be blamed for getting more pleasure or enjoyment from using their hands rather than other tools? Is eating an action primarily necessary to nurture the body, or an action that is necessary to perform courtesy? The same applies for education in general, and vocabulary learning specifically. Could learners be blamed for finding some materials or exercises boring, or wanting to enjoy themselves while learning new things? Is education a process that is necessitated by the rules and requisites of social obligation, or a natural and unique need of each human being that should be granted, in the way each individual will prefer?

While bearing these questions in mind, there is need to notice one more significant and vital point, which is the authority initiated and based action in the classroom. As it has been mentioned earlier, modern educational methods direct and control student activities in accordance with specific perspectives and norms. For instance, as in most activities, vocabulary learning activities are prepared beforehand and made ready by the authorities for the students to practise. Therefore, the learners are mostly directed towards consumption of the materials or exercises in the textbooks (recall eating the fish example), putting them in the position of passive consumers, rather than towards encouraging them to contribute to the content and to create their own exercises, which will make them active doers. At this point, it should be useful to remind ourselves that depth of processing and repetitions are characterised as quite significant factors in learning (e.g. Craik and Tulving, 1975; Stahl and Fairbanks, 1986; Nassaji and Hu, 2012; Dinsmore and Alexander, 2012; Nagy and Townsend, 2012), especially in cognitive psychology. An educator might spend months or years preparing a unit of a course book, which will be consumed in only a few weeks by the students; or a teacher's worksheet that is prepared after long hours of effort might be completed in only a couple of minutes. Therefore, while the authors of the vocabulary exercises go over the words and questions again and again while preparing them, they both see the target words rapidly and try to put them in the most appropriate contexts to make them more comprehensive and comprehensible, and thus, spend not only time but also considerable effort. In this case, the researcher would postulate that the real job, or deep processing of knowledge is done by the authorities, and that students are processing only surface knowledge. In an analogous manner, should it then be possible to suggest that the creator and designer of, let us say, a cell phone would be more in control of it compared to a simple user of it? If the answer is 'Yes', then the same should be true for the teacher and the taught. While the teacher learns more permanently and usually

retains more of the language input, the taught usually forgets most of the input after certain periods of time. Unfortunately, this is the case in most modern educational applications. Concentration and investment is mostly on the input rather than the output, or *in-out* that should reflect the learner. Although the taught are allowed to do or practise some things within the educational processes, this is usually very limited, or in many cases authority initiated and based. To sum up, students' attention is drawn to the words to study and acquire (which is not something bad at all), and they (each individual as a member of the whole) are also exposed to certain exercises such as fill in the gaps, matching, synonym and antonym writing, etc. (which might not suit the mental processing style, or be an enjoyable type of activity for every learner) that are prepared for them by others as well as providing exposure in context (which is good), so that they meet the unknown words as many times as possible (but meaningless without the concentration and awareness of the students), which might be the most likely cause of the problem of shallow processing.

Another source of the problem might lie in the attitudes of the instructors who very strongly identify and prefer to equate themselves with the teaching side, and forget that each person is initially and fundamentally a student and that learning should never end. In short, the tendencies of the authorities to hold tightly onto their social and academic status, and to associate themselves primarily with these, usually prevent them from seeing things from the point of view of the students' actual reality. At this point, they become influenced by the fallacy that they know everything and the best for everyone (for each individual); the truth (as if it is a generalizable one) that must be taught to help others become "successful" and "happy" as they are. Nevertheless, it would be much more beneficial to stop and ponder at a certain point and to realise that human beings are neither machines for uploading information into nor are they laboratory animals to be taught new tricks under conditioned environments. Everyone is responsible for his/her own learning, and thus, there is no "teaching" indeed. To put it in another way, teaching does not necessarily result in learning (Rodgers, 2002). Therefore, a teacher might inspire and influence a person by his/her personal possessions and characteristics, but s/he cannot influence that person's learning because learning is an action or process that is much associated with the brain, a quality which is inside each individual, and thus, should be something personal. Learning is a process which would also benefit from consideration of affective and spiritual matters, although we accept that measurement and assessment of these is difficult or impossible. Therefore, we reach the point of reviewing and revising teacher and student roles as well as

the positions of the top and down in education, and shifting modern philosophies, beliefs, trends, habits, methodologies, and actually everything in such a way that the postmodern approaches show and explain.

What do we do as FL instructors of the modern age? There is need to frankly admit that rather than helping our students how and where to find information, and how to synthesise, analyse, and manipulate the knowledge they acquire, we find the information ourselves, synthesise, analyse, and manipulate it for them, and give it readily to our students to study and internalise (at least this is what most FL teachers do in Turkey). However, 'what you don't make or do yourself is not yours'. Therefore, the researcher postulates that while FL instructors learn, learners usually memorise. For instance, we give our students the words that they should learn but which they might not necessarily need; we ask them to practise some phrases and dialogues that we believe they will need and use, but in which, in fact, they might not be interested at all; or we urge them to write and read things that are not related to their own preferences, and the efficacy of which might therefore be quite questionable, etc. This might not always be the conscious choice of teachers, but it certainly seems to be the deliberate philosophy of the authorities and course book authors. This total approach to education is most possibly bound to fail to create opportunities for flow and high motivational levels such as those that self-determination might create, since it is oppressive as well as regressive in view of the changes in education. The researcher would speculate that the innovations brought into the field of FLL/T have been introduced mostly through the teaching methods, and are all repetitive in a way because they have neither changed the position and roles of the learners and teachers nor established an active bottom-up approach that would put the learners and learning in the centre of education. Throughout the history of modern FLL/T, the teacher and teaching materials have always been persistently and insistently kept in the centre, where actually there should have been the learner and learning aspects as well as learner needs, intelligences, and interests which are domains that have indeed been introduced by the age of modernity. The credibility of these considerable and promising but neglected propositions of the modern approaches to education have increased, and become possible to be applied and further improved in the postmodern view, especially with the positive contributions of the individual and societal changes, and the developments in technology.

2.3.3. Postmodern Approaches to FL (Vocabulary) Learning

As explained and discussed in the philosophical background section of the current study, if postmodernism is reaction to modernism; then all the elements or factors that have been ignored or neglected in the modern approaches, should naturally be stressed in the postmodern approaches to education. Learner and learning diversity, individual interests and needs, autonomy, self-instructed or initiated learning as well as the methodologies and techniques used, roles of the instructors and learners, assessment processes and types, etc. of the postmodern view will differ from the modern ones, or the implementations of these should differ from the modern applications. What are the differences of the postmodern methodologies and FL education understandings then? These will be discussed in the following section through the review of the contribution of technology to epistemological and also to ontological problems, and the criticisms of modern FL education provoked by the shortcomings of the teaching methods and unsatisfactory learning results, particularly for the Turkish FL society.

2.3.3.1. Technology Assisted FL (Vocabulary) Learning and Practice

We are definitely in the age of technology, and schools are occupied by a technology addict generation (*net gen*- Tapscott, 1998; *digital natives*- Prensky, 2001) that situates technology, if not in the centre of their life, in an extremely wide context. It seems that human beings are as prone to embrace and internalise innovations as they are to learn new things. It has been reported that the amount of time a youth spends by playing computer games in today's world is estimated at 10,000 hours by the time they are 21 (Prensky, 2003), which is a clear indicator of the fondness of youth for the digital. Prensky also emphasises this proposition as a counter to the modern educational theorisers who support the idea of the short attention span of learners and speculate about it. The discussion is that human beings can put extra effort into some things, and they will do it voluntarily when they are intrinsically motivated, which, it seems, can be achieved through enjoyable tasks and activities, and thus, through involvement in technology. This should not be taken as a threat that computers, mobile phones, or the Internet will replace instructors. However, these symptoms reveal valuable signs to take advantage of, particularly for the educators or authorities. The contribution of technology to education is more philosophical than educational, the researcher believes. The provocative dreams or speculative postulations of

the past, both theoretical and practical, have become true. Many concepts discussed in the philosophical and psychological background of the present study such as self-directed learning, student autonomy, lifelong learning, motivation, the sources and validity of updated knowledge, unschooling, etc. have been empowered by technology. The conditions created by the rapid improvements in technology can make any 'dreamer' educator excited and restive to experience what the future will bring and offer. ICT has enabled people to progress their education without being bound to schools anymore, or obliged to suffer the egos and other unpleasant traits of "educational gurus". The "unschooling" idea, which is not new at all (see Illich, 1971; Bennett, 1972; Holt, 1977, 1981), is a range of educational philosophies and practices that are grounded on allowing individuals to learn through their daily routines and activities rather than through a more traditional school curriculum. To put it another way, this approach views individuals as natural learners who possess innate curiosity given at birth, and who thus, can take the responsibility of learning when the necessary autonomy and guidance is provided, which seems to be much more possible now than it has been ever before. This idea is very much in accordance with FL vocabulary learning. Once the necessary sources are provided for the learning and practising of unknown words, the rest becomes all up to the learner. In today's world of technology we have every opportunity to develop our lexical knowledge of any language on the globe; to read and listen in the target language(s) as well as to write and speak and to improve our productive skills while corresponding and communicating with native speakers of the language(s) both in synchronous and asynchronous applications such as *Facebook*, *Twitter*, *Skype*, *Second Life*, and various mobile based artefacts, etc. These environments have created communities which enhance and also liberate learning. Curtis (2003) stated that as learning communities developed, the intrinsic motivation of individual learners increased, which at the same time fostered the understanding of moving away from the concept of a teacher-fronted classroom to a student-centred learning environment. The present technology artefacts provide students with diverse opportunities to create and modify contents so that these suit their needs. This is good for the improvement of the feeling of autonomy and control over the learning processes. Brookfield (1987) noted that learner engagement with the materials and methods is the key to developing student ownership of the learning process, and to maximising individual learning. Felix (1999) proposed that exploiting the Web for language teaching would be useful as it contains plentiful resources, the integration of which into existing courses

would be very economic and productive, and this would contribute to global cooperation in the production of new high quality materials as well. The use of technology in FL education is a fast growing field, which offers promising evidence and data related to both the available means and their effects, and the fondness of the new generation learners for these. The field has already accumulated hundreds of studies on online, mobile, and CALL based FL (vocabulary) learning and teaching (e.g. Grace, 2000; Ma and Kelly, 2006; Yip and Kwan, 2006; Wong and Looi, 2010; Sahrir and Yahaya, 2012; Amoia et al., 2012; Llach and Fontecha, 2014) that indicate beneficial results both for the research methodologies and evidence of learning with technology. One recent approach to learning is game-based learning, which is closely associated with TF. Researchers have been claiming that students do not learn only by doing serious tasks as directed by formal institutions, but also informally while playing (online/digital) games. These unconventional modes of FL learning have been accepted and proposed by many studies (e.g. Gee, 2004; Rankin et al., 2006; Becker, 2007; Freitas and Griffiths, 2008; Neville et al., 2009; Hong et al., 2009; Uzun et al., 2013a, 2013b) that reflect the postmodern approach in some sense, and contradict the applications of modern education.

2.3.3.2. Learning by Doing and the Present Study

Learners don't learn what teachers teach. Lewis (2000, p. 11) explains as follows:

"Although it is hard for many teachers to accept, it simply is not true that our students necessarily learn what we teach them. Teaching is, on the whole, organised, linear and systematic, but it is a mistake to think that learning is the same. Learning is complex and non-linear, and although the result may be a system, its acquisition is far from systematic. We cannot control what students learn, in what order they will learn and how fast they will learn."

The dissatisfaction with the modern FL teaching methods and techniques, and their outcomes led to the awareness that methods are not generalisable and cannot serve as single formulas that solve the problem(s), which has resulted in a move towards new and more effective approaches to education. This move has found its place in the literature as the *eclectic approach* (e.g. Larsen-Freeman, 2000; Mellow, 2000), or the *post method pedagogy* (e.g. Kumaravadivelu, 1994, 2001, 2003) that should not be confused with

postmodern however, which is more a philosophical term, and thus, a wider concept than the educational post method. In the move away from teachers following one specific methodology, the eclectic approach is the label given to a teacher's use of techniques and activities from a range of language teaching approaches and methodologies. In other words, the teacher decides what methodology or approach to use depending on the aims of the lesson and the learners in the group. As it might be understood from this explanation, although the field has sensed the necessity for change and to seek different ways to carry out language education, it has remained unchanged to a great extent. The role of the teacher(s) is still maintained as the determiner and central figure of the process, and moreover, the methodologies as well as the aims of the lessons are overemphasised at every possible occasion. In short, the post-method condition (see e.g. Richards and Rodgers, 2002; Brown, 2002; Bell, 2003; Arikan, 2006; Huang, 2009; Razmjoo et al., 2013; Ur, 2013) examines predominantly L2 teaching rather than L2 learning, attempting to establish the relationship between theorisers and teachers to empower teachers with knowledge, skill, and autonomy, so that they can do their jobs more liberally and consciously, which might be indirectly related to learning conditions, but does not directly correspond to the students' learning. In other words, the post method or eclectic approach does not alter the paradigm, which is perhaps the first thing to do in postmodern approaches. Therefore, it becomes obvious that real and essential change(s) can occur only when the 'philosophy' is changed. In other words, there is need to realise and accept that learning comes first, and thus, that teachers or teaching is meaningless without the learners and their individual efforts. In that case, an approach that will allow students to determine the method(s) or technique(s) to (be) use(d) that will be in accordance with the students' needs and interests rather than considering primarily the aims of the lesson(s), and also enhance students' active participation would be very beneficial and appreciable. For, in postmodern approaches the essential thing is not necessarily the lesson(s) and result(s), but the humane instincts, needs, and processes. Thus, a teacher might be very much concerned with his/her teaching; but this might not be the most important concern of the students who might actually be interested in their own learning or satisfaction in the affective domains (see Figure 2.5.), which has to be the primary concern of teachers as well. Because teaching is not a branch of arts like painting, sculpture, literature, architecture, etc. that can be done for the pure sake of the branch, teaching cannot be done for the ideals of teaching while it has a living creature as a correspondent, that is the human being.

Teaching is, if necessary at all, for human beings; it is neither for teaching itself nor is it for the inanimate things taught that lose their value, validity, reliability, popularity, etc. sooner or later.

Figure 2.5. Bloom's Taxonomy of Affective Domain (adopted from mindmaptutor.com)[31]

At this specific point, a technique for FL education, proposed by Jean-Pol Martin, seems to have every potential to suit the basics of the postmodern educational approaches, and to be employed and improved markedly in learner centred educational settings. The Lernen durch Lehren (LdL- Learning through/by Teaching) technique of Martin (1985; 1994; 1999; 2001; 2002; 2004) allows learners to prepare and to teach lessons, or parts of lessons. This, however, should not be confused with presentations or lectures by the students, where students not only convey content but also decide for their own didactic elements such as methods, strategies, materials, etc. while teaching classmates. It should be emphasised that the LdL technique seems especially suitable for higher education where

---

[31] http://www.mindmaptutor.com/2010/04/blooms-taxonomy-mind-map-of-the-affective-domain/

learners have already accomplished their basic and secondary education, created and improved some learning strategies and autonomy habits, and possess the skills and information to use the necessary equipment and to find and manipulate knowledge. Although most of the work of Martin as well as the official website of the LdL community is in German, sufficient information about the theoretical and practical effects can be found in other languages (i.e. English, Turkish, Russian, etc.) in the publications both of a colleague of Martin, Joachim Grzega (2005 and 2006) and of other scholars (e.g. Skinner, 1994; Frick, 2005; Barnbeck and Neumann, 2006; Martin and Oebel, 2007; Grzega and Schöner, 2008; Spandirashvili and Spandirashvili, 2009; Hanbay, 2009; Park et al., 2009; Yücel, 2011; Tacke, 2011, etc.) as well as in Wikipedia[32] (as prompted by the official website- *www.ldl.de*). These sources report extensively on both the theoretical and practical insights of the LdL model. What is more, even though not associated directly with the LdL label, there is much evidence in the literature across various disciplines from artificial intelligence research to computing technologies, engineering, chemistry, physics, or mathematics education, pharmacology, etc. about the benefits and advantages of learning through teaching (e.g. Entwistle, 2000; Grudnoff and Tuck, 2003; Biswas et al., 2004a, 2004b, 2005, 2010; Cortese, 2005; Krokfors et al., 2006; Blair et al., 2007; Wagster et al., 2007; Leelawong and Biswas, 2008; Birkenkrahe and Mundt, 2009; Roma, 2009; Fiorella and Mayer, 2013).

In fact, the learning through teaching and active participation issue is not new at all. The fact that "practice makes perfect" has been observed and naturally applied since the very beginning of human history. The proponents of learning by doing have always stressed that while 'doing', as long as the action has not become automated, which is sometimes the case when we do things, people engage in and involve a variety of cognitive processing types such as organising knowledge, doing comparisons or contrasts, determining the strategies and techniques to employ, searching for appropriate means to overcome difficulties, etc. However, it would be possible to discuss whether these modern proponents of active learning have been the followers of "experiential methodologies" that encourage putting more emphasis on practice rather than on theory, but do not necessarily stress the need for reversing duties and responsibilities of doers; or allow or accentuate that practitioners or students should do more practice or exercises, which actually would not

---

[32] http://en.wikipedia.org/wiki/Learning_by_teaching

necessarily mean that they can organise and/or prepare and apply or decide about these things to be done. That is why the distinction between experiential education and its proponents such as John Dewey, Maria Montessori, Jean Piaget, among all others; and learning by teaching or doing and its contemporary proponents such as Jean-Pol Martin, and other scholars who research the issue in various disciplines should be made clear.

Grzega (2005) explains that the fundamental principle of the LdL model is to hand over as much teaching responsibility to the learners as possible to encourage them and engage them in the highest possible level of activity; and the students must think of appropriate teaching techniques to convey the topics. In this model the role of the teacher consists of pre-selecting or suggesting topics, giving guidelines regarding didactic possibilities and the relevance of content, assisting learners during preparation and in class, observing the learning process reflected by the actions and reactions in the class, and ensuring that, despite potential problems, at the end every learner will know what the main insights or conclusions of the lessons were supposed to be (Grzega and Schöner, 2008). This model of teaching or education has been presumed to solve the dilemma caused by the so-called "communicative turn" in FL education (Communicative Language Teaching-CLT), which encouraged the practice and improvement of communicative skills, but at the relative expense of grammatical competence. Martin's solution to this dilemma was to have learners teach grammar subjects themselves, by which they can develop both communicative and grammatical competence as well as acquire subject knowledge (hard skills) and methodological knowledge (soft skills) that will also contribute with useful side effects such as creativity, independence, self-confidence, complex thinking, explorative behaviour, presentation skills, Internet competence, punctuality, patience, reliability, etc. Recall that teaching has been stated as a linear process which contradicts the facts of learning and learners. The LdL removes the unrealistic linearity of classroom teaching, and confronts learners with the realistic uncertainties in life. Grzega (2006) suggests that while employing the LdL model, Martin shows that human beings strive to increase their competence of being in control of various walks of life and fields of study, which also leads to greater intrinsic satisfaction and feelings of happiness (flow effects). This strategy is a dynamic one because it takes into consideration the innovations at hand and the rich and diverse beliefs as well as habits of individuals by allowing the involvement of unconventional applications in education. Additionally, this model is in accordance with learner-centred methodologies based on individual differences, sense perception, and self-

activity that also indicate that a teacher is responsible not only for the education of the mind and body but also for the education of the heart.

The LdL model follows "the less is more" slogan pointing to the value of quality over quantity. However, it has provoked considerable criticisms such as "*With LdL one can get through less material because not everything is offered in a linear way; Students cannot cope with the presentation of linguistic material because they do not have the necessary overall knowledge; Presentations on cultural topics held by students often do not show enough depth and have a rather unacademic character- this might sometimes have to do with the source of information (e.g. internet sources); Presentation by students can never be perfect; Due to the open style of teaching and the high level of activity of students there is often a time problem, i.e. the problem of not getting everything done that was planned for the session; LdL courses are disproportionately more work-intensive than 'traditional' courses; LdL courses often give the impression of being unstructured*" (Grzega, 2006). Although Grzega (ibid.) responded to these criticisms, in case these have not been enough or satisfactory, there is need to realise that the same or similar criticisms could be applied to any alternatives to LdL, especially when we recall the ontological and epistemological as well as the spiritual and affective matters discussed in the philosophy and psychology sections of the present study. Besides, these criticisms do not pose an obstacle since the ideological and educational motivation for obtaining the LdL model as a VL/TM still remains solid and valid. Nevertheless, for teachers who enjoy exerting a role of authority, being always in control of everything, and maintaining the status quo; proposing dynamic and untraditional ways of instruction will shake and threaten their beliefs and knowledge, and thus, will make them raise suspicions and objections against changes and their innovative applications.

Throughout his personal experiences of FL education the researcher has noticed that he has learnt best the words that he has taught to others, and that he has never forgot these thenceforth. During his researches he was not surprised to find out that the idea that learning is enhanced through the act of teaching others has indeed been a popular one, and that a considerable amount of research has indicated that teaching others is an effective way to learn (e.g. Rohrbeck et al., 2003; Robinson et al., 2005; Roscoe and Chi, 2007; Yu and Klein, 2008; Gubera and Aruguete, 2013). As this motivation of mine to investigate VL/TM from this perspective has found reciprocation in the literature, both on a

philosophical and psychological basis and also from the educational aspect, the researcher searched the literature to see if there was any evidence or support coming from the FL vocabulary education field. Unfortunately, the researcher was unable to find even a single study that researched FL vocabulary learning/teaching from this dimension. Fiorella and Mayer (2013) reported on their study in which they investigated the learning through teaching issue from a similar perspective, although in a different field of study, physics. The researchers studied how the 'Doppler Effect' would be learned, comprehended, and retained by three groups of students who were involved in studying the subject under two different conditions: 1) studying a lesson on the subject without any expectation of later teaching it (control group); and 2) studying the lesson with instructions that they would teach the material, in which some participants actually taught the material by presenting a video-recorded lecture (teaching group), whereas others only prepared to teach but did not actually do so (participation group). The participants were given immediate and delayed comprehension tests. Results showed that both the teaching and participation groups outperformed the control group in the immediate test, whereas in the delayed comprehension test, only the teaching group significantly outperformed the control group. They concluded that when students teach contents of lessons, they develop a deeper and more persistent understanding of the materials than they do from solely preparing to teach. The present study similarly constructed an FL vocabulary acquisition setting in which two groups of learners were given English academic words to study, and afterwards tested to determine the immediate learning and delayed retention levels both on receptive and productive knowledge. One of the groups only studied the words in the traditional way and did the exercises given by the instructor (Learning through Doing Exercises- control group), whereas the other group were instructed to prepare exercises only with the purpose of teaching the given words to others (Learning through Preparing Exercises- experiment group). The observations were in parallel with the findings of Fiorella and Mayer (ibid.), and confirmed other studies that revealed that teaching contributes positively to learning.

One serious and attention deserving problem in postmodern educational philosophies and applications might be concerns related to assessment and grading. When this matter is approached from the positivistic paradigm of the modern view it might be the most essential element to maintain since everything indeed is based on and organised around measurement and numerical evaluation, and thus, removing tests or grading might be seen as the biggest reformist movement that will create much debate and many problems.

However, "Tests and exams, many of which are standardized and given high credence in the world "out there", are imposed on students with no consultation of the students themselves. The glorification of content, product, correctness, and competitiveness has failed to bring the learner into a collaborative process of competence building." (Brown, 1994, p. 40). Moreover, students can do well on standardised, undifferentiated tests only if they have learnt the material in the class, but postmodern education encourages the maximisation of students' learning at every turn; thus, standardised tests can only sample learning, making observations about mastery inferential at best by looking at trends and patterns for a school, which cannot be conclusive evidence about an individual student's or teacher's performance (Wormeli, 2006, p. 5). Therefore, when education is approached from the postmodern perspective, it seems that the assessment component mostly serves the authorities rather than the students, especially when certain types of evaluation tools are prepared and applied to make cumulative and summative assessments, categorisations, and generalisations. As discussed earlier, postmodern education involves engagements in rich and multifarious processes and actions that are in accordance with individual needs and interests, and thus, evaluation of learning by certain types of assessment tools in every condition will be very problematic and open to speculations. The fact that learning is an unavoidable and continuous process, and that we can never be very sure about individual acquisitions, should make it inappropriate to measure and categorise people or generalise their overall learning as well as their success in VL acquisition and use. The famous quotation of Albert Einstein "Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid."[33], and Figure 2.6 that has been frequently circulated on the web recently should make the matter clearer and exemplify our current positivistic approach to modern education. An authority that might even not be from the same type and world as the assessed might try to impose his understanding of criteria and gradation to evaluate the superiority or inadequacy of learning, skills, or abilities, etc.

---

[33] http://quoteinvestigator.com/2013/04/06/fish-climb/
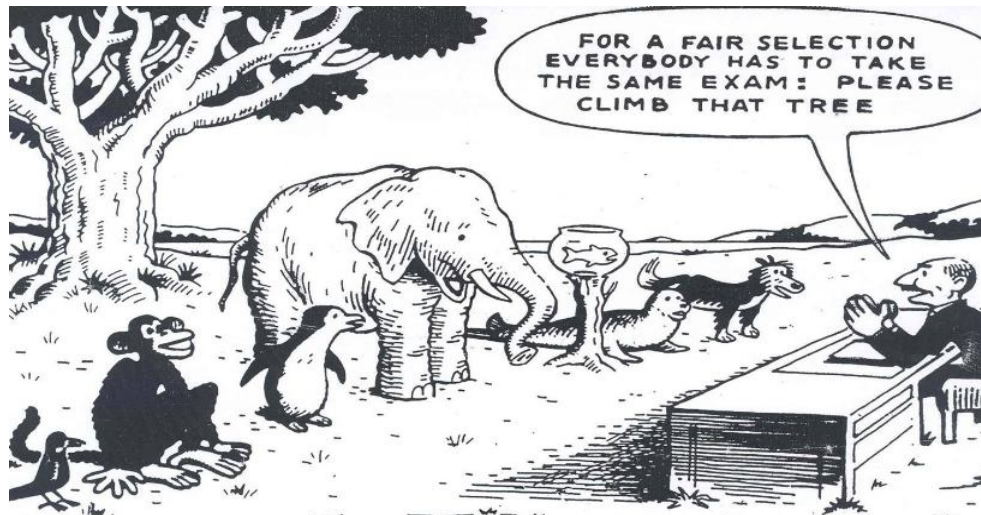
Figure 2.6. The Modern Education System (adopted from
http://closethecircle.blogspot.com/)

The same could be stated for VL/TM and their measurement and evaluation types. In the name of standardised testing and evaluation, individual differences are ignored somehow, so that the success or level of vocabulary knowledge and command is judged according to the paradigm of the VL/TM and their measurement and evaluation types. The matter is basically philosophical and has very much to do with the epistemological debates. These precisions have raised voices for "differentiated instruction". Wormeli (2006, p.1) defines differentiated instruction as follows:

"If your teacher ever rephrased a question; extended a deadline; provided a few extra examples in order to help you understand something; stood next to you to keep your attention focused on the lesson; regrouped the class according to student interest, readiness, or the way students best learned; gave you a choice among assignments based on something she knew about you; or let you redo a test or project if at first you didn't succeed, she differentiated instruction."

Certainly, the matter is much broader than that, but the definition provides some insights into the fundamentals of the approach. In general, differentiated instruction is doing what is fair for students, or doing different things for students who have different qualities and/or expectations in order to maximise their learning. This, however, should not be confused with individualised instruction that is carried out individually as opposed to

group or social education. This approach is often associated with multiple intelligences and varied ways of thinking, creating, and learning (Gardner, 1999, 2003; Sternberg, 1989, 1999a, 1999b). Wormeli (op.cit.) indicates that differentiated instruction is not about making learning easier for the students, but providing the appropriate challenge that enables students to thrive (p. 4). Therefore, teachers must be effective in developing many types of intelligence and also of appropriate challenge while conducting lessons; which does not seem to be the case in modern classrooms. Today's teachers (or teachers of the modern approach) are criticised for not being as effective as they need to be in motivating the learners (Prensky, 2003; Gee, 2003; Neville, 2009). Actually, the biggest problem facing education today is neither lack of information nor the insufficiencies of the necessary equipment and opportunities, but the "digital immigrant" instructors, who speak an outdated language and are struggling to teach a population, namely "digital natives" that speak a much different language and have very different interests and study habits (Prensky, 2001). Overall, differentiated instruction is a principle in education that is closely related to both cognitive and affective matters of psychology such as motivation, flow, and multiple intelligences as well as to the principles of naturalistic philosophy that will be in accordance with the ideas of postmodern approaches to education, which have been mentioned and stressed earlier. Tomlinson (1999, pp. 19-23) criticised schools for not being successful in creating flow, that is, high levels of motivation, which could be achieved by balance between appropriate level of challenge and skills or abilities. Moreover, she discussed the fact that schools act as though all children should finish classroom tasks as near to the same moment as possible; and also pointed to the fact that teachers still largely run classes, that they are likely to work harder and more actively than students most of the time, and that schools do wrong by preparing children for tests more than for life. It is hard to suggest that this state of education at schools is compatible with postmodern approaches.

In short, it might be proposed that the FL vocabulary learning and instruction community needs more research on basically how persistent learning occurs, rather than literature on abundant information that comes from similar aspects and perspectives, which investigate, for example, how effective certain vocabulary exercises or measurement tools are; or the effect of some predefined vocabulary acquisition methods and/or strategies; or the number of repetitions or guessing-from-context opportunities in learning FL vocabulary, etc. the researcher does not mean that these investigations are useless and

should be abandoned. These sources of information would still provide insight about vocabulary and VL/TM, but the main focus should be the learner and the learning processes rather than the results and the principles of unnaturally structured subjects. Moreover, the data should come primarily from the learners rather than from the instructors, methods, or even vocabulary itself, for it is not the method or the word that creates learning; it is the learner in any case. This is altogether where philosophy begins and/or ends, depending on the view of the beholder(s); and how they prefer to manipulate or conceive the human being and related psychological matters. We have options, for instance, humanism and science-ism, or naturalism and positivism to choose between while dealing with ontological and epistemological issues in general, and FL vocabulary instruction specifically.

2.3.4. A Summary of the Educational Ground and its Relation to the Study

Traditional teacher-centred models are now being replaced by alternative models of instruction, such as learner-centred, constructivist, collaborative and the like (Dangwal and Kapul, 2009). Nevertheless, the same situation cannot be postulated for conventional materials and applications in FL education, particularly in VL/TM. As it has been stated earlier, the literature on vocabulary contains an abundant amount of data on certain aspects, most of which reflect the same philosophical and methodological approaches. Although there are studies that take advantage of cross-disciplinary findings such as that of Egbert (2003) that addressed the flow in language learning and whether flow exists in FL classrooms, or Busse and Walter (2013) that concluded that people seem to derive more pleasure from activities they have chosen to do, and from meeting challenges; it seems that the very important ideas, concepts, principles, and findings of other disciplines are not reflected to the highest possible degree in the field of education, but that these findings are reported to have significant implications for education as well. In other words, for instance, VL/TM can be one specific area of linguistics and language education, yet the processes in which individuals engage in learning are general, and thus, necessitate benefiting from other fields that more deeply investigate human nature and characteristics, or from means that facilitate human learning. For, studying only other components will not help in proposing general conclusions that will be valid for everyone without understanding the learner, who is the essential element in education.

Tomlinson (1999, p. 23) remarked that while the rest of the world seized upon progress over the past century, the practice of education remained static. The probable reasons for schools or teachers maintaining resistance to changes has been a widely discussed problem (e.g. Fullan, 1993; Caine and Caine, 1997; Gillespie and McKee, 1999; Mumtaz, 2000; Albion and Ertmer, 2002; Christensen, 2002; Norris et al., 2003; Chapelle, 2003; Schlager and Fusco, 2003; Ertmer, 2005; Brzycki and Dudt, 2005; Teo et al., 2008, etc.), but the essential point to raise must be that 'everything changes except change itself', and this should be internalised by everyone. Resistance to change and innovation is senseless. Therefore, being dynamic and addressing the quick shifts in the habits and tendencies of societies as well as individuals should be the main aim of educational methodologies rather than insisting on defending the status quo. This could be enabled and achieved by fundamentally shifting the philosophy, which correlatively will necessitate altering the sources of knowledge, materials used, applications in the procedures as well as the roles of the teachers and learners, so that the new perspectives and principles do not contradict the essentials of the futuristic innovations. Education will improve and progress in beneficial dimensions if it is organised around the learner and learning, and his/her satisfaction and entertainment; rather than around the teacher and teaching, or fulfilment of the requisites of the teaching methods and curriculum syllabuses. The LdL model does not contradict any of the philosophical and psychological principles of the modern view such as Dewey's emphasis on collaborative reconstruction of experience, or Vygotsky's emphasis on socially meaningful activities, and is much in parallel with the insights of the postmodern view that respects, values, and takes into account personal differences, individual needs and interests, multiple intelligences, principles of lifelong and 'anyone-anywhere-anytime-anything' learning, etc. as well as the artefacts of ICT and its related facilities that enable both cognitive and emotional satisfaction of people. The innovations that the present era offers should be seriously regarded, and primarily the Internet, computers, and mobile phones as well as other technology artefacts should be employed in education as an inseparable part of the everyday lives of "digital native" learners (Prensky, 2001). Education and entertainment are as intertwined as teaching and learning in fact, so that even from the modern view if it is proposed that teaching is necessary for learning, then the same should be stated for education and entertainment or the opposite.

The present study aims at theoretically contributing to the literature both by raising awareness of educational philosophies and reminding ourselves of some very significant

psychology related factors in human education; and practically suggesting a new model of vocabulary learning and/or teaching that may create more persistent learning as well as more enjoyable conditions that are blended with technology. To make it more specific, the current educational approaches seem to be too positivistic in essence, which naturally necessitates top-down and authoritative practices as well as limitations in the sources and content of knowledge, which further necessitates the implementation of certain and subjective types of measurement and evaluation tools. The current study attempts to contribute to the field of FL education in general, and to FL vocabulary instruction in particular. The study is also claimed to be original and unique not only because it combines technology and vocabulary on philosophical and psychological grounds, but also because it deals with both the investigation and writing of the study predominantly in a naturalistic and qualitative style, and also stresses that this should be the way when investigating humane problems.

To sum up, it seems that not only VL/TM but also every domain of education will benefit from bottom-up and autonomous approaches that will involve technology and meet learners' keenness for the digital, which will necessitate serious revision primarily of the philosophies and recall of psychological findings as well as the shift in the roles of instructors and learners. Teachers should stop doing the majority of the work if the goal is students' learning rather than teachers' learning; whereas learners should become more courageous in the way of critical and creative thinking, and in claiming more options for initiative and liberty in their own education. Students should initially and fundamentally concentrate on their learning strategies and styles rather than blindly memorising chunks of information for further access, and teachers should assist them in this endeavour to facilitate better, all-round, and sustainable learning in the long run. Undoubtedly, to believe that altering the whole modern system all at once is possible would be a naïve expectation, but big changes always start with tiny steps and efforts, for one can never know when a snowflake might turn into an avalanche. Who knows, beginning from shifting the teacher and student roles, or changing or removing the assessment methods might be a good starting point. Actually, the change has already begun and we might be right in the middle of it here in the era of ICT.

CHAPTER 3

Methodology

This chapter consists of four sections. In section 3.1 the researcher will provide information about the participants that were involved in the piloting of the instruments, and treatment procedures; in 3.2 the researcher will provide details about the materials and sources used in the study; in 3.3 the researcher will describe the procedures that he followed in the implementation of the study; and in 3.4 the researcher will provide additional explanations about the scoring and evaluation methods and approaches that he adopted and employed during the assessment procedures.

The present study attempts to build on the philosophy-psychology-education triangle with specific focus on FL education. The methodology that is employed provides triangulation by using both quantitative and qualitative data as sources of evidence related to the applications and observations in the study. The study can be defined as a quasi-experimental design with selective and eliminative pre-tests, and comparative post-tests and delayed post-tests. The current design can be an addition to the four models of quasi-experimental designs offered by Lynch (1996). The structure is as in Table 3.1.

Table 3.1. Quasi-experimental design with selective and eliminative pre-tests, and comparative post-tests and delayed post-tests.

Pre-test	Group	Treatment	Post-test	Delayed Post-test
Test A Test B	Program group	LtPE	Test C Test D	Test E Test F
Test A Test B	Control group	LtDE	Test C Test D	Test E Test F

In the present model, while the pre-tests serve just as selective and eliminative tools and are homogenous, that is to say, Test A is formed of only productive items and Test B of only receptive items; the post-tests and delayed post-tests serve as means to compare the groups, where the post-tests (Test C and Test D) are mixed and consist of both productive and receptive items. On the other hand, the delayed post-tests are homogenous just as the pre-tests, but they consist of the same items as those of the post-tests. These tests and procedures will be explained further in the following sections.

3.1. Participants

3.1.1. Participants in the Piloting of the Instruments

The participants were 4 English Language Teaching (ELT) professionals, two of whom were PhD candidates and academic staff in the ELT Department at Uludag University (Participant 1- P1 and Participant 2- P2); one was an MA student in the City College of New York following the Teaching English to Speakers of Other Languages (TESOL) programme in New York, U.S.A. (Participant 3- P3); and the remaining participant was a Teacher of English who was working at a state primary school in Turkey (Participant 4- P4). The age of the participants was between 25 and 35, and the mother tongue of the participants was Turkish. The participants had not only ELT experience of between 2 and 12 years but also EFL education of at least 12 years.

The English language knowledge of the participants that took part in the piloting procedures would be determined as being at the C level (C1 or C2) according to the Common European Framework of Reference for Languages[34] (CEFR) which defines "proficient users". Although it would be always possible to discuss the true or realistic level of persons' linguistic knowledge, the English language (EL) records of the participants such as the Internet-based Test of English as a Foreign Language (TOEFL IBT)- and the Foreign Language Proficiency Examination for State Employees (KPDS)- suggested that they are proficient EL users. The EL records of the participants were as follows: P1- 95 KPDS, P2- 104 TOEFL IBT and 93 KPDS, P3- 94 TOEFL IBT, P4- 88 KPDS. See the report of the equivalence of FL tests[35] prepared by the committee of the Assessment Selection Placement Centre (ÖSYM) of the Turkish state to compare the scores. Table **3.2.** presents the age, EL education background, ELT experience, and EL scores of the participants.

---

[34] http://www.coe.int/t/dg4/linguistic/Cadre1_en.asp
[35] http://www.osym.gov.tr/dosya/1-59085/h/yabanci-dil-sinavlari-esdegerlikleri.pdf

Table 3.2. Age, EL education background, ELT experience, and EL records of participants.

Participant	Age	EL Education (years)	ELT Experience (years)	EL Records (TOEFL and/or KPDS)
P1	35	13	12	95 KPDS
P2	33	12	10	104 TOEFL IBT & 93 KPDS
P3	28	12	5	94 TOEFL IBT
P4	25	13	2	88 KPDS

The piloting participants were consulted while preparing the quantitative testing tools and qualitative data conduction forms in order to refine the items and distractors in the pre-tests and post-tests, questionnaires, and interviews. Further informal discussions were also carried out throughout the treatment processes with the participants and other colleagues and professionals.

3.1.2. Participants in the Treatment Procedures

The participants were 40 second-year university students who were enrolled in the Educational Technologies and Materials Development (ETMD) course in the Faculty of Education at Uludag University, Bursa, Turkey. While 12 of the students were male, 28 were female, and the age of the participants ranged between 20 and 23. The mother tongue of all students was Turkish. Although the students were from diverse social backgrounds, their linguistic proficiencies, at least their receptive proficiencies in English, were similar, as it was proved by the general admissions test (Student Selection Test- ÖSS) that is administered centrally by ÖSYM (Student Selection and Placement Center) throughout Turkey once a year. This test is mandatory for every university candidate in Turkey. The state universities in Turkey do not have the privilege of selecting their own students, but are urged to accept the students appointed to them. This procedure is carried out by ÖSYM, which groups the students according to their ÖSS scores, and distributes them among the universities, regarding the preferences of the candidates that they indicate after receiving their scores. Each university and/or department has an informal popularity and reputation rating among students, for whom, for instance, the ELT Department of Uludag University stands within the top ten in Turkey. Therefore, the students that enrol in this department come from the top ten percentile. In other words, the students in the ELT Department would most probably have attained a score within the top ten percent of scores

among candidate scores in ÖSS. All participants of the present study had entered and become successful in the same ÖSS before being eligible to enrol in the ELT Department at Uludag University. The ÖSS exam for the candidates of ELT departments contains questions from fields such as English, Turkish, geography, history, psychology and philosophy. Therefore, my presumption was that all participants had similar levels of linguistic and general knowledge. The general presupposition about the English proficiency of these students, depending on their ÖSS English records, would be that they are at the B level (B1 or B2) according to CEFR, and heading towards C level.

All participants expressed that they either possessed a personal computer (PC) or had easy access to any computer with Internet connection. Besides, they demonstrated a similar desire and inclination toward autonomous, distance and/or blended, ICT-based education. Furthermore, none of the students declared knowledge of any additional languages except Turkish and English. Moreover, it would be possible to state that they also had similar educational backgrounds (they came from the same educational policies, curricula, applications, etc., that is to say, the same educational system), interests, habits, and tendencies, especially concerning issues of EL and ICT. The matters related to English language and ICT such as EL vocabulary knowledge, literacy in computing, familiarity with the Internet and other digital environments, attitudes towards online communication, etc. are particularly central to the present study, which will be further discussed in the following sections.

3.2. Materials and Instruments

The materials used in the present study were: 1) The Academic Word List (AWL) of Coxhead (2000); 2) a private hosting service and domain name; 3) the *MOODLE* software; 4) the *WordPress* web software; 5) pre-tests, post-tests, and delayed post-tests prepared with the help of MOODLE facilities; 6) questionnaires prepared by *Google Documents* (GDs).

3.2.1. The AWL

The AWL of English language was prepared and evaluated by Averil Coxhead in the School of Linguistics and Applied Language Studies at Victoria University of Wellington,

New Zealand as a research topic for her Masters (MA) thesis, which was also published as a book (Coxhead, 1998). The new AWL was compiled from a corpus of 3.5 million words in written academic texts, and developed by excluding the words that were among the most frequent 2000 words of the General Service List (GSL) of West (1953). The AWL was prepared with the intention of replacing the University Word List (UWL) of Xue and Nation (1984), and to serve the teachers in institutions and autonomous vocabulary learning students who wanted to learn the words most needed to work with academic texts. The list (Coxhead, 2000) that the researcher benefited from in the present study contains 570 word families which were reported to be predominantly academic. The list consists of ten sub-lists, each of which contains 60 word families except sub-list 10 which contains 30 word families. The sub-lists were arranged according to frequency, that is to say, the most frequent words were in sub-list 1 and the least frequent words were in sub-list 10, and the most frequent word of each word family is also indicated. Table 3.3. provides an illustration related to the sub-lists, word families, and how the most frequent form (MFF) of the words in each unit is indicated.

Table 3.3. Sample word families and MFFs in the units of sub-lists.

Sub-list 1	Sub-list 2	Sub-list 3	Sub-list 4	Sub-list 5
issue	***conduct***	***ensure***	***professional***	**generate**
issued	conducted	ensured	professionally	*generated*
issues	conducting	ensures	professionals	generates
issuing	conducts	ensuring	professionalism	generating
Sub-list 6	**Sub-list 7**	**Sub-list 8**	**Sub-list 9**	**Sub-list 10**
index	***file***	***theme***	**compatible**	**invoke**
indexed	filed	themes	compatibility	*invoked*
indexes	files	thematic	incompatibility	invokes
indexing	filing	thematically	*incompatible*	invoking

The words in bold are headwords of the given word family, and the italic words are the MFF of the family. Bold and italic words are both the headwords and MFF in the unit.

In the present study, the headwords in each word family were elicited, and only the words that were not the MFF of the family were adopted, in order to decrease the probability that the majority of the words be known by the subjects. In other words, these words were selected to increase the probability that they are not commonly known by the students. For instance, words such as 'issue, generate, compatible, invoke, etc.' were

selected to be used in due course. However, although they met the criteria of being the headword and not the MFF, words such as 'dominate, analyse, finance, etc.' were left outside the word pool since they possessed cognate features for Turkish people, as reported also by Uzun and Salihoglu (2009). Words with false cognate status, if any, were included. 188 headwords (see Appendix 1) in total were determined to be used and tested prior to the pre-testing procedures. After the pre-tests and evaluations, from among the 188 words, 26 words (Tier 1 words) were revealed to be commonly unknown by all 40 participants; 23 words (Tier 2 words) were detected to be unknown by 36 of the participants, but 4 students indicated partial knowledge of the words, that is, they responded correctly to either the productive or receptive item in which the words were necessitated in the pre-tests, and/or in the self-evaluation questionnaire; and 24 words (Tier 3 words) were determined as being unknown by 27 students out of 40, which represented the majority, and thus, these 24 words were also determined to be included in the treatment procedures, but not to be focused on in the ultimate testing and evaluation procedures. The Tier 3 words were used only as distractors in the post-test items (see Appendix 2). Table 3.4. shows the number of words used in each phase of the study.

Table 3.4. Number of words used in the phases of the study.

The total vocabulary pool
N= 570 (AWL head words)
Elicited words for the pre-tests
N= 188 (AWL head words that were not the MFF of the family)
Elicited words for the treatments and post-tests
N= 26 (Tier 1) N= 23 (Tier 2) N= 24 (Tier 3- only as distractors in the items)
Elicited words for the delayed post-tests
N= 26 (Tier 1) N= 23 (Tier 2) N= 24 (Tier 3- only as distractors in the items)

3.2.2. The Domain Name and Hosting Service

The researcher registered a domain name just before the study was initiated. The domain name that was registered for the present study was *e-learnlanguage.com*. This domain would be the main address where all testing procedures and some treatment activities would be realised. The registration was annual, and thus, it had to be renewed annually.

Likewise, the hosting service was bought initially for one year but renewed annually. It was a Linux hosting package that included unlimited disc space, monthly traffic, MySQL databases, etc., and the specifications were to meet the criteria that the MOODLE version to be used required. Among these requirements, the most necessary ones were as follows: PHP 5.3.2, MySQL 5.0.25, Postgres 8.3, MSSQL 2005 or Oracle 10.2.[36] The MOODLE version adopted in the present study depended on the potentiality and facilities provided by the hosting service provider. Therefore, although the hosting provider did not hold the technical infrastructure that was required by the latest MOODLE version for the time being, it provided sufficient technical infrastructure for the penultimate version. Notwithstanding the conditions in the very beginning of the study, the technical facilities and provisions improved in time and reached the requirements of the ultimate MOODLE software.

3.2.3. The MOODLE Software

MOODLE is defined as a Course Management System (CMS), also known as a Learning Management System (LMS), or a Virtual Learning Environment (VLE). It was originally created and developed by Martin Dougiamas in 2002, and has been progressively improved and upgraded since then. The word MOODLE stands as the acronym for Modular Object-Oriented Dynamic Learning Environment, which addresses learners and educators who would like to extend their activities online. It is a free source e-learning software platform, which as of November 2013 reported significant statistics[37] related to its global impact as in Table 3.5.

Table 3.5. MOODLE Statistics in December 2012

Registered sites	91,386
Countries	241
Courses	8,220,438
Users	76,144,176
Teachers	1,295,438
Enrolments	87,159,738
Forum posts	133,197,164
Quiz questions	207,335,820

---

[36] http://download.moodle.org/
[37] https://moodle.org/stats/

By November 2013, seventeen MOODLE versions had been released, each containing a number of upgrades, and each of which was an upgrade of the preceding one. Table 3.6. shows the development and evolution process of the software[38], and also the maintenance support conditions for each version.

Table 3.6. **D**evelopment and evolution of MOODLE versions and maintenance support conditions.

Version	Release Date	Last Upgrade	Release Date	Technical Support
2.6	18 November 2013	2.6	18 November 2013	Active
2.5	14 May 2013	2.5	14 May 2013	Active
2.4	3 December 2012	2.4	3 December 2012	Active
2.3	25 June 2012	2.3.3	12 November 2012	Active
2.2	5 December 2011	2.2.6	12 November 2012	Active
2.1	1 July 2011	2.1.9	12 November 2012	Bug fixes only
2.0	24 November 2010	2.0.10	9 July 2012	Bug fixes only
1.9	3 March 2008	1.9.19	9 July 2012	Bug fixes only
1.8	30 March 2007	1.8.14	3 December 2010	Ended
1.7	7 November 2006	1.7.7	28 January 2009	Ended
1.6	20 June 2006	1.6.9	28 January 2009	Ended
1.5	5 June 2005	1.5.4	21 May 2006	Ended
1.4	31 August 2004	1.4.5	7 May 2005	Ended
1.3	25 May 2004	1.3.5	9 September 2004	Ended
1.2	20 March 2004	1.2.1	25 March 2004	Ended
1.1	29 August 2003	1.1.1	11 September 2003	Ended
1.0	20 August 2002	1.0.9	30 May 2003	Ended

The MOODLE 2.2.6+ version was adopted, installed, and used in the present study. This package was downloaded for free from the official MOODLE website[39], uploaded and set up in the database where e-learnlanguage.com was hosted.

3.2.4. The WordPress Web Software

WordPress is just one of a dozen types of web software that allow users to prepare websites or blogs free of charge, to upload materials, communicate with people, create forums, and publish these so that everyone can see and read them. The core software is built by community volunteers who also develop and integrate different kinds of plugins

---

[38] http://docs.moodle.org/dev/Releases
[39] https://moodle.org/

and themes that are made available to all users who would like to try and use these. WordPress, like MOODLE, is an open source code system, which has been active since 2003. WordPress defines itself as the largest self-hosted blogging tool in the world, being employed and used on millions of sites and by tens of millions of people[40].

The WordPress weblog (WPWB) used in the present study was *http://leventuzun.wordpress.com/*[41]. The researcher used this site to announce the curricula and evaluation procedures of the ETMD course, to introduce students with new topics to read and think about, to assign weekly appointments and tasks, to publish brief announcements, etc. The blog enabled participants to follow the updates about the course from their home, which it was also possible to do on the MOODLE site, but the researcher preferred to direct students to the blog in order to keep the MOODLE part simpler for the students and to use it just for the testing and evaluation procedures. In other words, the blog was the address which the students could access anytime and check the upcoming events or news related to the course. They could also post their opinions there for the instructor and other students to see, but as they had an option to do this by using their e-mails, it was observed that private communication through e-mail was preferred most of the time.

3.2.5. The Tests

Three tests (pre-test, post-test, and delayed post-test) were prepared to observe and analyse the quantitative evidence of the study, and were applied on the e-LearnLanguage MOODLE site (eLL). Each of these tests was formed of two types of items aiming at assessing vocabulary knowledge, namely 'controlled' productive and receptive, which were modelled on Laufer and Nation, 1999, and Nation, 1990 respectively. Although controlled is a term used for the productive format, in the present study it will be used for the receptive condition as well, because philosophically it is possible to discuss the view that any artificially created conditions or items would be controlled in nature by the preferences of the creator or researcher. Both sentence types and the distractors or options provided in an item are determined subjectively by the person in charge. Figure 3.1. and

---

[40] http://wordpress.org/about/
[41] http://leventuzun.wordpress.com/etmd/

Figure 3.2. provide examples for the productive and receptive vocabulary knowledge items that were prepared and used in the testing procedures of the present study.

Figure 3.1. Examples for the productive and receptive vocabulary knowledge items of the pre-tests.

Figure 3.2. Examples for productive and receptive vocabulary knowledge items of post-tests and delayed post-tests.

3.2.5.1. Pre-tests

The pre-tests (see Appendix 3) consisted of 376 items in total (188 productive vocabulary items and 188 receptive vocabulary items), which also generated the pool of items used in all tests. The pre-tests comprised words from all sub-lists in the AWL. The number of words adopted from each sub-list is specified in Table 3.7. These tests were homogenous, that is to say, the controlled productive and receptive items were given in different and separate tests. In other words, the pre-tests consisted of two tests that included only productive or only receptive vocabulary items.

Table 3.7. Number of words adopted from the AWL for the pre-tests.

Sub-list	Total words	Verb	Noun	Adjective
1	16	14	1	1
2	23	16	5	2
3	20	14	5	1
4	17	15	1	1
5	13	9	2	2
6	24	18	2	4
7	18	12	4	2
8	23	15	2	6
9	23	20	1	2
10	11	9	1	1
Total	**188**	**142**	**24**	**22**

The controlled productive academic vocabulary knowledge (CPAVK) test consisted of items that asked participants to complete the sentences with the correct word, the first few letters of which were already provided. The target words were given mostly in simple sentences that contained high-frequency words, or words from among the first 2000 words of the GSL. The purpose of providing the first few letters of the target words was to ensure that the sentences be completed with the exact words that were aimed at, and not some other words that could be grammatically or semantically appropriate in the given conditions. The sentences were adopted and/or adapted from the Longman English Dictionary Online (LDOCE)[42]. The participants were allotted as much time as they needed to complete the test, and were allowed to go back or to move between the items freely unless clicking the submit button to finish the test. The test was completed in a time of

---

[42] http://www.ldoceonline.com/

between 38 minutes and 81 minutes by the participants in the piloting, and between 22 minutes and longer than 120 minutes by the students prior to the treatment procedures. The number of letters to be given for each item was discussed with the piloting participants after their completion of the tests. Extra letters were added to or deleted from the items to provide the optimum numbers that direct to the target words.

The controlled receptive academic vocabulary knowledge (CRAVK) test consisted of items that required students to match the given definitions with the correct words from among a number of options provided. In each item there were 3, 4, or 5 simple definitions, which were adopted from the LDOCE, and were relatively easy to understand. The numbers of words that were provided as options for the students to choose and match were twice the numbers of the definitions. That is to say, for the items that included 3 definitions, there were 6 options; 8 for items of 4 definitions; and 10 options for items with 5 definitions. The options could be viewed when the open up menu was clicked. The words that were provided as options to choose from were all from the same word category/class (all noun, verb, or adjective, see Schmitt, 1999) in an item, chosen from among the pool of 188 words. There was no time limitation, and the participants were allowed to go back or move between the items unless clicking the submit button to finish the test.

Both the students and the piloting participants were directed to take the CPAVK test first, and then the CRAVK test. This detail was considered to eliminate the probability of word/item familiarity effect that might lead towards guessing or logical memory retrieval.

3.2.5.2. Post-tests

The post-tests (see Appendix 4) consisted of 75 items in total (38 productive vocabulary items and 37 receptive vocabulary items) that were formed from Tier 1 and Tier 2 words, which were elicited after the pre-tests. Two separate tests were prepared (Test 1 and Test 2), using the Tier 1 words unchangeably, and including the first half of the Tier 2 words (N= 12) in one test and the remaining half (N= 11) in the other test. Therefore, while Test 1 (N= 26 + N= 12) consisted of 38 items, Test 2 (N= 26 + N= 11) was formed of 37 items. Unlike the pre-tests, these tests were mixed, that is to say, the controlled productive and receptive items were given in the same tests. In other words, the post-tests consisted of two tests that included both productive and receptive vocabulary items. Both productive and receptive items were prepared for each word of Tier 1 and Tier

2, and distributed in Test 1 and Test 2. For instance, if a word in Tier 1 was included as a productive item in Test 1, its receptive item was placed in Test 2. Therefore, only one item for a given word was included in a test.

Both Test 1 and Test 2 consisted of items that required students to either match the given definitions with the correct words from among a number of provided options (receptive items) or to complete the sentences with the correct word, the first few letters of which were already provided (productive items). Unlike the pre-test of CRAVK, the receptive items in the post-tests were presented together with more distractors or options to choose from while matching definitions with the words. The number of words provided as options for each definition ranged between 6 and 12, and were all visible as multiple choice options. There was also a time limitation set for each test at 35 minutes. The participants were allowed to go back or move between the items unless clicking the submit button to finish the test. Both Test 1 and Test 2 were completed in a time of between 15 minutes and 35 minutes each by the participants. Since the reliability and validity of the items were approved by the piloting participants and confirmed after the application of the pre-tests, the piloting procedures were not carried out for the post-tests. Exactly the same productive items that contained the elicited words after the pre-testing were used in the post-tests, and for the receptive items the given definitions were exactly the same, but just the numbers and format of the options given in the pre-tests were changed. In these tests the options were not hidden in an open-up menu but given openly as multiple-choice, and the options were from among Tiers 1, 2, and 3 that were given in chunks of six to twelve, all of which were from the same class (i.e. noun, verb, adjective).

3.2.5.3. Delayed post-tests

The delayed post-tests (see Appendix 5) consisted of the same 75 items that were used in the post-tests. However, unlike the mixed type items of the post-tests, these tests were homogenous just like the pre-tests were. There were two separate tests (delayed CPAVK and delayed CRAVK) comprising only productive items (N= 38) or only receptive items (N= 37), which also had to be completed within a certain time of 35 minutes per test. The participants were allowed to go back or move between the items unless clicking the submit button to finish the test. Both tests were completed in a time of between 10 minutes and 35 minutes by the participants.

3.2.6. The Questionnaires and Interviews

In order to analyse the qualitative observations of the study, four questionnaires (Self-evaluation questionnaire[43], General evaluation questionnaire[44], Course evaluation questionnaire[45], and Motivation questionnaire[46]) that were prepared on *Google Documents*[47] were applied besides the face-to-face interviews that were conducted regularly and randomly with different students each week during the treatments.

The self-evaluation questionnaire (SEQ) contained the 188 words that were elicited from the AWL to be used in the pre-tests. Inspired from Meara and Buxton (1987) "Yes/No technique", participants were asked to tick the words the meaning(s) of which they didn't know and/or which they couldn't use productively in a sentence (see Appendix 6). This questionnaire was applied right after the pre-tests. The participants were asked to provide their names, so that their responses could be considered separately for each individual. The SEQ was prepared to cross check the quantitative pre-test results by taking into consideration the participants' opinions as well by allowing them to evaluate their own knowledge regardless of the test results and the test items that were prepared and organised by the researcher.

The general evaluation questionnaire (GEQ) was prepared to investigate the general attitudes, beliefs, and opinions of the participants related to the importance of FL components and skills; tools, materials, and means; the ETMD course; some principles in education and/or training; contribution opportunities of technology in FL education; and testing and grading procedures. There were seven items, five of which asked students to rate the given options in a scale ranging between 1 and 5 (from 1 meaning less to 5 meaning more), and two items which asked students to provide open ended sentences or

---

[43]

https://docs.google.com/spreadsheet/viewform?formkey=dGxxOEhHQkNoUXBwTml1d01HUTJaSWc6MA #gid=0

[44]

https://docs.google.com/spreadsheet/viewform?formkey=dE9rZXdNMUZOcy0tZ0Nhb3VSUVZsUWc6MQ #gid=0

[45]

https://docs.google.com/spreadsheet/viewform?formkey=dFFmV2dGZUtLSFFCQkk0c1pVZlYzVmc6MQ# gid=0

[46]

https://docs.google.com/spreadsheet/viewform?formkey=dDlKUWlEbEdud1paUWNSZmZGZlRrZHc6MQ# gid=0

[47] http://en.wikipedia.org/wiki/Google_Docs

discussions about the question in hand (see Appendix 7). The GEQ was administered right after the treatments, during the application of the post-tests. The participants were asked to provide their names and gender for probable analysis and evaluation of gender effects and separate or identical responses of individuals, in due course.

The course evaluation questionnaire (CEQ) was prepared to collect qualitative information related to the content and procedures applied during the delivery of the ETMD course (see Appendix 8). The CEQ was administered right after the treatments. The students were asked to respond anonymously to ten items, four of which asked students to write open ended sentences, three of which asked them to choose an option from among the provided ones, and three of which asked them to rate the given statements in a scale between 1 and 5 (from 1 less or strongly disagree to 5 more or strongly agree).

The motivation questionnaire (MQ) was prepared to record qualitative information related to the feelings of the participants that they experienced during the activities carried out within the scope of the ETMD course, and the general tendencies about their study habits and use of various educational tools. The MQ (see Appendix 9) consisted of ten items in which students were asked to rate the given statements in a scale between 1 and 5 (from 1 strongly disagree to 5 strongly agree). It was administered right after the treatments.

Besides the questionnaires, the researcher regularly held interviews with the students prior to, during, and after the treatments to gain an in-depth idea about their thoughts, experiences, and other internal feelings or realities that they experienced. These were recorded in the form of journal keeping or diary by the researcher. The researcher deliberately adopted an extra positive attitude towards the students to make them feel comfortable and stress free during the activities. The participants were always welcome to share their opinions about the activities, or anything else, without any hesitation. They were also exposed to some questions, one-to-one or in pairs or groups, from time to time by the researcher. The questions forwarded were in line with the items in the questionnaires. Additionally, the researcher kept diaries about his observations that took place both in the classroom and outside the classroom. All these sources of qualitative data generated a significant amount of evidence to evaluate, discuss, and report on.

Further information about the preparation and administration of the tests and questionnaires will be provided in the Procedures section.

3.3. Procedures

The procedural steps of the study are summarised in Table 3.8. The present study progressed in the sequence of four main steps as follows:

Table 3.8. Summary of the procedural steps and numbers of the participants.

Step 1	Pre-tests (Piloting the materials)		CPAVK N=4+40	CRAVK N=4+40	SEQ + GEQ N=40
Step 2	Treatment	Group 1	LtDE	N=20	Embedded answers (Cloze) Essay Matching Multiple choice Random short-answer matching Short answer True/False Other
		Group 2	LtPE	N=20	
Step 3	Post-tests		CPAVK N=40	CRAVK N=40	CEQ + MQ N=40
Step 4	Delayed Post-tests		CPAVK N=40	CRAVK N=40	

Step 1: Preparation and administration of the pre-tests, and SEQ. The pre-tests were prepared with the help of MOODLE's *Quiz* module. Two types of questions were prepared, namely productive items, using the *Embedded answers (Cloze)* option for the CPAVK test, and receptive items, using the *Matching* option for the CRAVK test.

For the cloze test/productive items MOODLE necessitates writing codes within the sentences for each word, such as in the following example for the word 'legislate': 'Only Parliament has the power to **leg**{:SHORTANSWER:=islate} on constitutional matters.' When the codes were entered in the form mentioned above, the items appeared as in the following:

- Only Parliament has the power to **legi** [____] on constitutional matters.

In the draft version of the pre-tests, the number of the first few letters to be given for each word was determined by the researcher, and after the piloting with the four participants that was realised in separate sessions with P3 and P4 and collaboratively with

P1 and P2, the collected responses were used to refine and improve both the items and the number of the letters to be given. The MOODLE embedded answers facility provides an option to give students a hint, which might be a letter, for each word when they click the hint button, but this option was not used in the present study. The sentences that contained the target words were selected mostly from the LDOCE and adopted or adapted in such a way that they would not cause extra linguistic difficulty for the students. All items were in sequence as in the AWL. In other words, the test started with the words that were in sub-list 1 and ended with the words that were in sub-list 10 for all students.

For the matching test items MOODLE provides a facility, in which the sentences or the definitions can be written, and the correct answer(s) as well as the other choices, options, or distractors can be installed in a drop-down menu. The researcher prepared the draft version of the receptive items and piloted it with the four professionals. Some important changes took place after the revisions and feedback received from the participants. First, the distractors were modified so that they were all from the same class with the target word, that is to say, noun, verb, or adjective. Second, some sentences were changed for sentences that were clearer and easier to understand. The items did not follow a frequency sequence such as in the cloze test, since the vocabulary numbers of each word class were not equal in all sub-lists. When the menu was clicked the same words appeared for all definitions, and the number of choices was always double that of the definitions. The items appeared as in the following:

to find a satisfactory way of dealing with a problem or difficulty	Choose...
to fill a particular amount of space, time, place, etc	Choose...
to show or suggest that someone is involved in a crime or dishonest act	Choose...

Choose...
resolve
dispose
convert
occupy
infer
implicate

The SEQ was prepared with the help of GDs and administered online. Since the list was a long one, where participants were asked to tick the words they didn't know, the background of the form was selected from among the vivid ones provided in GDs. The link

of the form was posted both on the WPWB and the eLL. The words were presented in isolated list format (not in context), and as in the sequence of the AWL, from more frequent to less frequent. All data were recorded in Excel format by accessing the Google Account and Drive section (this is a standard facility provided by GDs, and was used for all questionnaires of the study).

Step 2: Management and application of the treatments. The treatment phase was the most arduous and demanding step of the study. All activities and tasks were realised within the scope of the ETMD course, on which 40 students were enrolled during the spring semester of the 2011-2012 educational year. This was a 14-week course that was taken for the first time by all participants. The ETMD course is a standard course that is included in the standardised package program of YÖK (The Council of Higher Education) for faculties of education in Turkey. The ECTS (European Credit Transfer and Accumulation System) value of the course is 5 (2 theoretical and 2 practical hours), and it is placed in the 4th semester of the 8-semester program (see Appendix 10). Practically, the core applications of step 2 took 5 weeks, beginning from the 8th week of the course. The course was delivered in English, with minimum usage of Turkish, just in cases when students requested it because something was not clear.

Initiating step 2 began by dividing the class into two groups (Group 1- LtDE and Group 2- LtPE), each consisting of 20 students. This was done randomly, and ultimately, 8 male and 12 female students were placed in the LtDE (Learning through Doing Exercises) group, and the remaining 4 male and 16 female students were appointed to the LtPE (Learning through Preparing Exercises) group. Nevertheless, they were not informed about this until Week 8, the time when they were asked to work on specific words from the AWL. Beginning from week 8 of the course, the students in each group were assigned specific tasks, either to do some specific exercises (LtDE) that were prepared by the researcher or to prepare vocabulary exercises (LtPE) with some specific words that were given weekly by the researcher. Whether in the LtDE or LtPE group, the students were exposed to the same group of words each week.

The first seven weeks of the course aimed at improving the computing skills of the participants or introducing them to some fundamental applications and software that would be beneficial during their professional lives and the treatment procedures as well. While

the first seven weeks of the course provided students with technical and instructional familiarity with the applications and procedures, the following five weeks were allotted for the treatments to be carried out with the predetermined two groups. The last two weeks of the course were allotted to summarise, evaluate, and discuss the whole period and procedures. The content, guideline, acquisitions, and course outline of the ETMD course (see Appendix 11) was determined by the researcher who was also the course instructor. The students were informed that there would be no exam(s), but weekly tasks, which would aim at "formative" evaluation and assessment. Therefore, specific tasks for each week were given to the students weekly at the end of each lesson, after completion of which certain marks would be awarded, and which accumulatively would make their grades at the end of the semester. These tasks and the marks to be awarded were announced in the lesson each week, and also published in the WPWB, so that students who could not attend the course in some specific week(s) could check online, complete the tasks for the following week, and catch up with the rest of the class. During the lessons, which were held in a fully equipped computer laboratory with Internet connection, the students were given a short PowerPoint slide show (PPSS) presentation or briefing about the matters and subjects of the week, after which they were asked to see and practise these on computers under the guidance and assistance of the instructor. Two students shared a computer in the laboratory and used it in turn, so that each student had chance to practise the exercises for at least one hour each week. The pairs were formed by the students and remained the same until the end of the course. This ensured that they would feel comfortable, and this would facilitate pair work. Nonetheless, it should be noted that all students had PCs and Internet connection that enabled them to work further or practise the exercises outside the classroom as well.

As mentioned earlier, the first seven weeks of the course were mostly introductory, while the following five weeks formed the core of the treatment procedures, and the last two weeks were allocated for evaluation. In the following, while indicating the topics and content of each week, the researcher will briefly explain what we did and provide details about the procedures as well as the problems that were faced and some examples of good practices.

Week 1: After presenting the 14-week outline, aim and content of the course, and discussing the materials and evaluation principles as well as the course delivery

procedures, which took approximately an hour and half, including the mutual discussions and introductions, the researcher asked students to do two things: 1. to register for a *gmail* account and 2. to register with the *e-learnlanguage.com/moodle* website. However, the researcher asked them to do these in a standard way, so that it would be easy to track their responses in the further applications. The researcher asked them to register themselves with their full names, that is, the name and surname, and to put a certain number before their names. That number was the one which was in the course enrolment list before each student's name. So, all usernames looked like the following: *35efeulucan@gmail.com*. Additionally, they were asked to use one of their existing codes as a password, so that they would not forget it. These two tasks also served as an example for how the task giving procedure would be throughout the course. The tasks were arranged, as much as possible, from easier to harder. For example, *Task 1* of the course was "registering for a gmail account in the instructed way", which was granted 2 marks, and *Task 2* was "registering with the eLL website" that was granted an additional 2 marks. In other words, students had gained their first 4 marks immediately after the class, at Week 1 of the course.

Week 2: After introducing the basic terminology, texts, concepts, philosophies, ideas, and approaches related to FLL/T and technology, the tasks of the week were announced to the students, which were as follows: *Task 3*- "Complete the CPAVK test", and *Task 4*- "Complete the CRAVK test". The pre-tests of CPAVK and CRAVK were applied in the second week of the ETMD course as tasks assigned to students in return for 10 marks (5 marks for the completion of each test) towards the students' total grades of 100. There was no time limitation set for the tests, but the students were discouraged from extending the time and to respond to the items the correct answer of which they didn't know or were not sure of. They were assured that the success level in the test would not affect their marks or grades at all, but that the successful completion and submission would be awarded with the announced marks for everyone. Additionally, the students were instructed to do the CPAVK test before they took the CRAVK test. The main reason for this was to eliminate the familiarity effect that might be created when the participants saw the words. Therefore, it was ensured that the productive items were seen prior to the receptive items. Consequently, all students completed the tests in the instructed sequence in a time of between 45 minutes and 2 hours for each test. A very important question that might arise here is: How could it be ensured that all students treat or take the tasks seriously and responsibly? This will be discussed later in the following chapter.

Week 3: After Working with Word, Excel, PowerPoint and their alternatives (OpenOffice) to record, edit, and embed audio and visual files, links, etc., the following tasks were announced to the students: *Task 5*- "Prepare a well-structured quiz of at least 4 questions in MSWord document. Save it as a Web Page. Convert it to PDF" (4 marks), and *Task 6*- "Create a PowerPoint quiz. Insert your MSword quiz into it *(Insert-object-msword document-ok)*. Find an appropriate video file (preferably no longer than 2 mins. and convert it to WMV. Embed your video into your PowerPoint quiz (Insert-movies and sounds/from file-browse-ok). Write at least 4 questions in the next slide related to the video" (6 marks). In the classroom we had already practised some examples, so that students were ready to do the tasks on their own as homework. The researcher posted another note in the WPWB, indicating that the researcher expected to receive their attentive tasks in their memory sticks, no later than the day before our next lesson. The researcher received, controlled, and collected students' tasks throughout the week, and marked them as "completed, half completed, or not completed" in the pre-designed chart where the student names and tasks of the weeks were written. These practices taught us that not all students had memory sticks, and preferred to record their work in a CD or DVD. Also, there was absolute need for a good virus protection program in case students brought some unwanted and malicious files in their memory sticks. It would be useful to create a folder for each student to save his/her tasks in, and to check and track them each week. Otherwise, in later weeks the number of files might grow and reach a point where it would be really hard to find a task for reference, etc.

Week 4: After introducing ways for developing and applying online surveys, questionnaires, tests, etc., collecting and evaluating the outcomes (e.g. SurveyMonkey, Google Documents), the researcher asked the students to prepare their own GDs questionnaires, and to e-mail their work to the instructor. Following the practice session, the following tasks were announced to the students at the end of the lesson: *Task 7*- "Prepare a questionnaire on Google Documents that includes, all types of questions" (4 marks), and *Task 8*- "Post your questionnaire on your Facebook account. If you don't use *Facebook*, send it to your friends, including the instructor (elearnlanguage@gmail.com), and check the results by next week's lesson" (2 marks). The researcher has noticed that from among 40 students, only 2 students didn't have a Facebook account, or didn't want to use it in the course activities. All students prepared their questionnaires (the content,

theme, or topic was left to them), collected and evaluated the results, and presented them in the following week, when they created their own WPWBs.

Week 5: After informing about the educational platforms, software and programs such as DynEd, Moodle, HotPotatoes, etc. as well as the synchronous and asynchronous (Skype, chat, forums, e-mail, etc.) opportunities to communicate and deliver language education contents, we used some of these, and created some practices within the classroom. Some students were also willing to share their own and related experiences and knowledge. In the end of the lesson the following tasks were announced: *Task 9*- "Create your own blog in WordPress.com and Create a page with the name Educational Technologies & Materials Development" (4 marks), and *Task 10*- "Upload and post your PPSS Quiz onto your ETMD blog page and make it ready for downloading by the users. Then go for quick skimming-scanning through your book (the course book consisted of a collection of nine book chapters and fourteen journal papers) and post: 3 significant sentences about "English language learners" (3 marks) and 3 significant sentences about "The study of language" (3 marks) and include the references (page numbers in the course book) for each sentence. The tasks aimed at contributing not only to the improvement of the computing skills and knowledge of the students but also to their academic skills, as much as possible. As it was observed that students don't like to read academic texts much, Task 10 was intended to integrate reading academic texts into the process, so that they could accomplish the assigned tasks. This was a way in which the instructor tried to maintain the motivation of the students throughout the study. To put it another way, the main aim was not reading, but reading was necessary to complete some steps, tasks, and assignments that students liked to do or work with. What motivated the students or what they really liked to do was observed and/or investigated informally during the activities. An attempt was made to organise, design and set the tasks and activities in parallel with the *flow theory*. For tasks 9 and 10 the instructor provided step by step *print screen* pictures, and posted these on the WPWB to guide students before the tasks were assigned.

Week 6: After presenting ways to construct, host, launch, maintain, upload and update simple websites and to associate these with language learning/teaching documents and environments, we practised these in the classroom to ensure that all students were comfortable enough to work on their own or to do them anywhere and anytime. After the practice and exercises, the following tasks were announced: *Task 11*- "Register for a

hosting service at http://www.freehosting.com (free hosting and domain name provider) by selecting the "Free Subdomain" option. On the next page of the site choose the ".host.org" extension and write your domain name. On the next page fill in the necessary parts and proceed by clicking "Complete Order". Go to the official MOODLE website http://moodle.org and download the Moodle 1.9.17+ version" (10 marks), and *Task 12*- "Install the Moodle package in your hosting place, so that you can start working with Moodle" (20 marks). The tasks were arranged from easier towards harder, and the marks awarded were in accordance with the difficulty of the tasks. For tasks 11 and 12, the instructor prepared video files and published these on the *Youtube* website, so that the students could watch these while doing the tasks. The video files were recorded in Turkish, that is to say, the instructor recorded his screen and all the applications he did while explaining in Turkish, so that the students wouldn't misunderstand some part(s) because of the technical language used. The video about getting a domain name- hosting service- preparing the "index" page- embedding links[48] was a 236MB file of 13 minutes 10 seconds in length, and the video about installing MOODLE[49] was a 343MB file of 18 minutes 57 seconds in length. The feedback received from the students was really positive and even very praising.

Week 7: After introducing MOODLE as an improved and flexible platform for language learning/teaching, practising installation and setting up of a MOODLE site, and exploring the features, opportunities, and facilities provided in it, each student worked with his/her own MOODLE site to customise, develop, and explore the features that were included in the software package. Because students were more or less acquainted with MOODLE from the previous weeks, during the in-class activities at week 7 all students became comfortable enough to log in, navigate, and use the basic facilities provided by the software. At the end of the lesson the following tasks were announced to be accomplished by the next week's lesson: *Task 13*- "Change the name of your 'Miscellaneous' course to 'Educational Technologies & Materials Development', and add a new course with the name 'EduTech & MatDev 2012' (short name ET&MD 2012)" (10 marks), and *Task 14*- Install a - 'Wiki' in your ET&MD 2012 course, and then post your summary of the text assigned to you (10 marks) and - 'Glossary' to your new course, and then enter 10

---

[48] http://www.youtube.com/watch?v=q3HcQ8NypZ0&feature=youtu.be
[49] http://www.youtube.com/watch?v=-ABugaH39As&context=C4dca0c0ADvjVQa1PpcFOTvgosO_J-zTD458KW61UfkzyoldHHBoA

unknown words from your book (10 marks). So, week 7 was one of the most important weeks for the students, not only because it awarded an important number of marks, but also because it prepared them for the following five weeks. The students intuitively sensed that the upcoming period was a serious one, and were also informed and refreshed by the instructor to maintain their motivation.

Week 8: The topic of week 8 was working with MOODLE and creating study materials, worksheets, exercises, tests/exams that concentrate on Vocabulary skills. The students were already experienced in preparing these types of materials on MS Word and PowerPoint. In the classroom the researcher asked each student to prepare different types of vocabulary items (at least 10 items) intended for primary school students, which they could also use in the 4th year when practising their teaching skills at schools. They saved their items and created their tests, which they also activated on their MOODLE sites. The tasks of the week were as follows: *Task 15*- "Take the Self Evaluation Questionnaire of WEEK 8 in the blog (leventuzun.wordpress.com)" (2 marks), and *Task 16*- "Review your CPAVK results and note down the incorrect words (note down the words that appear when you move the cursor over the red areas), and e-mail them to elearnlanguage@gmail.com" (4 marks). In order to elicit the most correct data before preparing the post-tests, the researcher wanted to compare the quantitative results attained from the CPAVK and CRAVK, and the students' own declaration and evaluation about their academic vocabulary knowledge. So the researcher would be sure about the words that were not known by the students, and would prepare the items in the tests accordingly. These two tasks aimed at turning students' attention once again to the words from the AWL, and also at detecting if there was any change or improvement in the vocabulary knowledge of the students in the first seven weeks of their education, because the semester was running and the ETMD course was not the only course that provided input to the students.

Week 9: The topic of the week was working with MOODLE and creating study materials, worksheets, exercises, and tests/exams that concentrate on Grammar skills. In the classroom students were asked to prepare different types of grammar items (at least 10 items) intended for primary school students, which they could also use when practising their teaching skills at schools. They saved their items and created their tests, which they also activated on their MOODLE sites. The tasks of the week were as follows: *Task 17*- "(GROUP 1 and GROUP 2) Prepare a glossary within your MOODLE site including the

following 23 words, and e-mail the link to elearnlanguage@gmail.com" (10 marks). The mentioned words were as follows:

allocate–amend–append–compensate–compound–confer–constitute–constrain–
convene–deviate–discrete–entity–equate–rode–grant–implicate–incline–
intervene–invoke–legislate–precede–reside–subsidy

And, *Task 18*- "Find your name in the Table below and follow the instructions specified for your group" (24 marks). The table of student names that indicated to which group each student was assigned was published in the WPWB. The instructions provided for the two groups were as in the following:

ET&MD GROUPS	
GROUP 1	GROUP 2
Prepare at least "two types" (cloze-test, multiple choice, matching, crossword puzzle, or any other) of questions to create a vocabulary quiz including the 23 words provided above (46 questions in total) You can do it either on MS Word or in HotPotatoes e-mail your quizzes or MS Word documents to elearnlanguage@gmail.com	Go to http://www.e-learnlanguage.com/moodle/ and enter Educational Technologies & Materials Development then click on Learning through Doing Exercises and complete the following exercises: QUIZ 1 (in case password is requested- ltde) QUIZ 2 QUIZ 3 Crossword puzzle

Week 10: The topic of the week was working with MOODLE and creating study materials, worksheets, exercises, tests/exams that concentrate on Reading skills. In the classroom students were asked to prepare different types of reading items (at least 10 items) intended for primary school students, which they could also use when practising their teaching skills at schools. They saved their items and created their tests, which they also activated on their MOODLE sites. The tasks of the week were as follows: *Task 19*- "(GROUP 1 and GROUP 2) Prepare a glossary within your MOODLE sites (or in MS Word) including the following 21 words, and e-mail the link (or the Word document) to elearnlanguage@gmail.com" (6 marks). The mentioned words were as follows:

assess–coherent–commence–component–conceive–contradict–deduce–evolve–
exclude–incorporate–induce–innovate–inspect–interpret–mediate–practitioner–
restrain–retain–unify–utilise–fund

And, *Task 20*- "Follow the instructions specified for your group" (14 marks). The instructions provided for the two groups were as in the following:

ET&MD GROUPS	
GROUP 1	GROUP 2
Prepare at least "two types" (cloze-test, multiple choice, matching, crossword puzzle, or any other) of questions to create a vocabulary quiz including the 21 words provided above (42 questions in total) You can do it either on MS Word or in HotPotatoes e-mail your quizzes or MS Word documents to elearnlanguage@gmail.com	Go to http://www.e-learnlanguage.com/moodle/ and enter Educational Technologies & Materials Development then click on Learning through Doing Exercises and complete the following exercises QUIZ 4 QUIZ 5 QUIZ 6 Extra exercise

Week 11: The topic of the week was working with MOODLE and creating study materials, worksheets, exercises, tests/exams that concentrate on Listening skills. In the classroom students were asked to prepare different types of listening items (at least 10 items) intended for primary school students, which they could also use when practising their teaching skills at schools. They saved their items and created their tests, which they also activated on their MOODLE sites. The tasks of the week were as follows: *Task 21*- "(GROUP 1 and GROUP 2) Prepare a glossary within your MOODLE sites (or in MS Word) including the following 26 words, and e-mail the link (or the Word document) to elearnlanguage@gmail.com" (6 marks). The mentioned words were as follows:

accommodate–accumulate–assure–attain–attribute–cite–compatible–confine–
cease/fluctuate–dispose–diverse–equip–exploit–guideline–inhibit–insight–
outcome–pose–presume–proceed–quote–distort–reluctance–restrict–sole–
substitute

And, *Task 22*- "Follow the instructions specified for your group" (14 marks). The instructions provided for the two groups were as in the following:

ET&MD GROUPS	
GROUP 1	GROUP 2
Prepare at least "two types" (cloze-test, multiple choice, matching, crossword puzzle, or any other) of questions to create a vocabulary quiz including the 26 words provided above (52 questions in total) You can do it either on MS Word or in HotPotatoes e-mail your quizzes or MS Word documents to elearnlanguage@gmail.com	Go to http://www.e-learnlanguage.com/moodle/ and enter Educational Technologies & Materials Development then click on Learning through Doing Exercises and complete the following exercises QUIZ 7 QUIZ 8 QUIZ 9 Questionnaire

Week 12: The topic of the week was working with MOODLE and creating study materials, worksheets, exercises, tests/exams that concentrate on Writing skills. In the classroom students were asked to prepare different types of writing items (at least 10 items) intended for primary school students, which they could also use when practising their teaching skills at schools. They saved their items and created their tests, which they also activated on their MOODLE sites. The tasks of the week were as follows: *Task 23*- "All students should complete the Questionnaires that were assigned for the week in http://www.e-learnlanguage.com/moodle/course/view.php?id=8" (5 marks), and *Task 24*- "All students should complete the Tests that were assigned for the week in http://www.e-learnlanguage.com/moodle/course/view.php?id=8" (15 marks).

Week 13: The topic of this week in the course outline was enhancing presentations of individual/pair/group tasks. These would be a selection of total tasks that were carried out by the students both in the classroom and outside the class. We were to collect and combine all data, so that they would be available to all students. Nevertheless, this was the final exam week in the faculty, when no classes were carried out.

Week 14: The topic of this week in the course outline was facilitating the conjoined project of combining individual/pair/group tasks to make a mega website for ELL/T. Nevertheless, week 14 was the last week of the course, and since the final exams had

already been carried out the students did not tend to attend the classes. Therefore, the materials collected ultimately were not rearranged or uploaded to a website where all materials would be made available online.

Step 3: Preparation and administration of the post-tests. The post-tests were prepared in the same way that the pre-tests were prepared, that is, by enhancing the facilities offered by the MOODLE package. The differences between the pre-tests and post-tests were only in the form of the receptive items, in the number of words that were used, and in the presentation of the tests, that is, in pre-tests the receptive and productive items were given in separate tests whereas in the post-tests they were mixed within the tests. So, after the commonly unknown words were elicited from the total of 188 words that were tested in the pre-tests and SEQ, it was determined that 49 words (Tier 1 and Tier 2) were not known by all students, except 4 students who declared in the SEQ that they knew the words that the researcher had put in Tier 2 or had correctly responded to the items of Tier 2 words either in the CPAVK or CRAVK pre-tests; and 21 words were determined not to be known by 27 of the students, while the remaining 13 declared that they knew the words in the same way as the 4 students mentioned above in relation to the Tier 2 words. Therefore, the researcher decided to use Tier 1 words (N= 26) as fixed items and to test these words both productively and receptively in separate tests, and to include half of the Tier 2 words (N= 23) in one test and the other half in the other test, where the distractors would be options given from among Tier 1 and 2 words, to which Tier 3 words (N= 21) were also added besides the words in Tier 1 and Tier 2. So, two post-tests were prepared, namely Test 1 and Test 2. While Test 1 consisted of 13 productive and 13 receptive items of words from Tier 1, and 6 productive and 6 receptive items of words from Tier 2; Test 2 consisted of 13 receptive and productive items of the reverse words (while 13 words were used in receptive items in Test 1, they were used in productive items in Test 2, and the remaining 13 words were used in the opposite way), and 5 receptive and 6 productive items of words from the remaining words in Tier 2. In this way, Test 1 comprised 38 items (19 productive and 19 receptive) and Test 2 consisted of 37 items (19 productive and 18 receptive) in total. Both tests were allocated a time limit of 35 minutes to discourage students from being distracted by other applications, and to motivate them towards finishing the tests at once in single sittings for each test. The students were

informed that the grade that they would score would not affect their marks for the announced tasks, and just to do their best in the most sincere way, as the results would affect the instructor's PhD thesis work. They were also discouraged from marking or responding to the items they were not sure about.

The CRAVK post-tests presented the definitions of the target words as in the pre-tests, but this time the choices were not hidden in the menu, but given in ways such as multiple choice items which were all visible. Moreover, the number of the distractors was higher than it was in the pre-tests. The number of options that were provided for each definition varied between eight and eleven, and they were all from the same word class. Because the number of words that were to be used in the post-tests was limited, the researcher preferred to give the correct choices in chunks of words, to decrease the possibility of giving correct responses just because of familiarity with words or by chance. On the other hand, the productive vocabulary assessing items were all the same as in the pre-tests. The informal conversations with students indicated that they aimed for the items that they were sure they knew. It was observed that all students completed the tests within the time limit allowed without any problem.

Step 4: Preparation and administration of the delayed post-tests. The delayed post-tests were formed from the same items that were prepared for the post-tests, but the items were given in different sequences and the productive and receptive items were presented separately. In other words, there were two different delayed post-tests, namely the delayed productive vocabulary test (DPVPT) and delayed receptive vocabulary test (DRVPT). The DPVPT consisted of 38 items, and the DRVPT comprised 37 items. These tests were administered at the beginning of the fall semester of 2012-2013 educational years, which was approximately five months after the post-tests were applied. The procedure was exactly the same as the one that was followed for the post-tests.

It was observed that one student could not complete the tests at the first sitting because of Internet or computer problems, as he declared that his connection was cut or he could not access the eLL site because of some hardware problems. Therefore, this student was given a second chance to complete both tests at another attempt, but again at single sittings for each test, and also within the same time limitations.

3.4. Scoring and Evaluation

Although the literature offers different approaches and applications that have been adopted and practised by researchers, there is no solid or standard method proposed for how to evaluate and rate the known and unknown vocabulary items, since every study might require some unique methodologies and/or aspects to be adhered to. What does knowing and not knowing a word mean in the present study? Besides the SEQ, which allowed for qualitative evaluation, the tests prepared for assessment in the present study provided quantitative evidence related to which words were known or not known. The scoring and evaluation procedures in the present study were as follows:

The word(s) were considered as known if

- the students gave the correct answer in one of the tests and the SEQ

- minor spelling mistakes existed in the productive items typed by the students

The word(s) were considered as not known if

- the students didn't give a correct answer in any of the tests and the SEQ

- major spelling mistakes existed that changed the words into another one

Each known word was given a value of '1' whereas an unknown word was scored by '0'. The total accumulation reflected the cumulative knowledge of the participants.

The questionnaire items were evaluated in parallel with the Likert scale from 1 to 5 which were determined to mean as follows:

1	poor
2	weak
3	moderate
4	good
5	very good

Within this scale the 4 point threshold was evaluated as satisfactory and very good whereas any score below 3 was interpreted insufficient or not satisfactory enough, and thus, evaluated as weak.

CHAPTER 4

Results and Discussion

The present chapter consists of four sections. Section 4.1 reports on and discusses the quantitative results obtained from the tests and questionnaires, while section 4.2 presents the qualitative evidence recorded after the informal interviews that were carried out throughout the study and the observations made as well as the open ended questions forwarded in the questionnaires, and discusses these. Section 4.3 provides a summative report of the outcomes of the study in relation to the research questions and hypotheses, while the questions identified in the methodology chapter are delved into in section 4.4.

4.1. Quantitative Results and Discussions

The data from the tests were downloaded as a Microsoft Excel spreadsheet from the eLL website and saved in the computer. These data tables showed when each student started doing the tests and when he/she finished them along with the correctly done items and total grade. Therefore, the eLL provided detailed and automated output related to each participant as well as the test items. The tests of each student were also checked manually for some minor mistakes that might be assessed as wrong by the software program but which should be accepted as correct according to the criteria of vocabulary knowledge that was set for scoring and evaluation.

After the administration of the pre-tests and the SEQ, the data were examined and it was determined that all students began with no knowledge (though this would be a very daring statement) related to the target words. After the treatments, the post-tests were applied and the conducted data were arranged and entered in the SPSS 13.0 statistical estimation programme. The data of each student for each test were entered separately. So, the following data were ready for analysis:

a) Student names
b) Post-test 1 productive item scores (PT1prod)
c) Post-test 1 receptive item scores (PT1rec)
d) Post-test 1 total scores (PT1total)
e) Post-test 2 productive item scores (PT2prod)
f) Post-test 2 receptive item scores (PT2rec)
g) Post-test 2 total scores (PT2total)
h) Post-tests productive score totals (PTprodtotal)
i) Post-tests receptive score totals (PTrectotal)

j) Post-tests summative total scores (PTtotal)
k) Delayed post-test productive scores (DPTprod)
l) Delayed post-test receptive scores (DPTrec)
m) Delayed post-tests summative total scores (DPTtotal)
n) Difference of post-test and delayed post-test productive items scores (DIFprod)
o) Difference of post-test and delayed post-test receptive items scores (DIFrec)
p) Difference of post-test and delayed post-test totals items scores (DIFtotal)

4.1.1. Post-test and Delayed post-test Results

After the data were entered in the SPSS programme, *Tests of Normality* were carried out to check the natural distribution of the participants' scores as a pre-determined standard procedure before applying *Independent Samples T-test,* which is a test carried out to compare control and experiment groups. For data groups of lower than 30, *Shapiro-Wilk* test is suggested (Can, 2013, p.89), and the output in Table 4.1. shows the results of the tests of normality as follows:

Table 4.1. Results of tests of normality for the productive, receptive, and totals of post-test and delayed post-test scores in the control and experiment groups.

Group	Test	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Control	PTprodtotal	.174	20	.113	.883	20	**.020**
	PTrectotal	.123	20	.200*	.956	20	.476
	PTtotal	.152	20	.200*	.946	20	.307
	DPTprod	.188	20	.063	.872	20	.013
	DPTrec	.176	20	.104	.907	20	.056
	DPTtotal	.167	20	.145	.898	20	**.037**
Experiment	PTprodtotal	.146	20	.200*	.919	20	.095
	PTrectotal	.105	20	.200*	.963	20	.607
	PTtotal	.158	20	.200*	.966	20	.676
	DPTprod	.160	20	.189	.910	20	.064
	DPTrec	.081	20	.200*	.981	20	.949
	DPTtotal	.100	20	.200*	.964	20	.628

*. This is a lower bound of the true significance
[a]. Lilliefors Significance Correction

As it was noticed that the PTprodtotal scores (.020), DPTprod scores (.013), and DPTtotal scores (.037) of the control group did not secure the statistical limit for normality, the researcher proceeded towards examining the group statistics (Table 4.2.) and t-test

outputs (Table 4.3.), but maintained the idea to also apply non-parametric estimation (*Mann-Whitney Test*) with the intention to be more critical, conservative, and precise with regard to the produced statistics. The results before the Mann-Whitney Test were as follows:

Table 4.2. Group statistics of post-test totals and delayed post-test totals.

Test	Group	N	Mean	Std. Deviation	Std. Error Mean
PTprodtotal	Control	20	24.50	8.003	1.790
	Experiment	20	24.25	7.940	1.775
PTrectotal	Control	20	25.05	7.605	1.701
	Experiment	20	22.00	7.167	1.603
PTtotal	Control	20	49.55	13.949	3.119
	Experiment	20	46.25	11.894	2.660
DPTprod	Control	20	12.80	7.951	1.778
	Experiment	20	18.95	7.119	1.592
DPTrec	Control	20	18.50	7.783	1.740
	Experiment	20	21.05	6.030	1.348
DPTtotal	Control	20	31.30	14.704	3.288
	Experiment	20	40.00	11.912	2.667

As can be observed in Table 4.2., there were 20 students in each of the control and experiment groups. While the PTprodtotal scores of the control group were (M= 24.50 and SD= 8.003), these were (M= 24.25 and SD= 7.940) in the experiment group. Likewise, the PTrectotal scores of the control group were (M= 25.05 and SD= 7.605), while these were (M= 22.00 and SD= 7.167) in the experiment group. In the PTtotal these were (M= 50.55 and SD= 13.949) for the control group and (M= 46.25 and SD= 11.894) for the experiment group. Therefore, although there was not a very big discrepancy between the descriptive statistical data of the two groups regarding the PT scores, there seemed to be a slight difference in favour of the control group in all three cases. Nevertheless, when the numbers from the DPT were examined, it was noticed that this had diverged in all three cases in favour of the experiment group. While the DPTprod scores of the control group were (M= 12.80 and SD= 7.951), these were (M= 18.95 and SD= 7.119) in the experiment group. Likewise, the DPTrect scores of the control group were (M= 18.50 and SD= 7.783), and (M= 21.05 and SD= 6.030) in the experiment group. In the DPTtotal these were (M= 31.30

and SD= 14.704) for the control group and (M= 40.00 and SD= 11.912) for the experiment group. These data showed that there was somehow higher retention in the experiment group, but a certain level of attrition of knowledge in both groups.

The independent samples t-test results in Table 4.3. indicated that there was a significant difference in the DPTprod scores (p= .014), and the DPTtotal scores (p= .047) but that this had a value that was just on the border of the significance level (.05), and thus needed careful attention since the number of the participants also was not high enough to cultivate solid statistical estimations. Because of this, it might be more appropriate to carry out non-parametric estimations.

Table 4.3. Independent samples test results of the post-test totals and delayed post-test totals.

| | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | 95% Confidence Interval of the Difference | |
| | | | | | | | | | |
	F	Sig	t	df	Sig (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
DPTprod	1.000	.324	-2.577	38	**.014**	-6.150	2.386	-10.981	-1.319
DPTtotal	2.376	.132	-2.056	38	**.047**	-8.700	4.232	-17.266	-.134

Therefore, Mann-Whitney test was applied and the outputs that were produced can be examined in Table 4.4. As it was suspected after the independent samples t-test, Table 12 showed that although the DPTprod indicated significant difference (p= .012), the DPTtotal results (p= .063) were revealed to be not significant after the non-parametric statistical estimation of Mann-Whitney as follows:

Table 4.4. Mann-Whitney test results of post-test totals and delayed post-test totals.

	Ptprodtotal	Ptrectotal	Pttotal	DPTprod	DPTrec	DPTtotal
Mann-Whitney U	197.500	151.500	159.000	108.500	163.000	131.500
Wilcoxon W	407.500	361.500	369.000	318.500	373.000	341.500
Z	-.068	-1.314	-1.110	-2.480	-1.003	-1.856
Asymp. Sig. (2-tailed)	.946	.189	.267	.013	.316	.063
Exact Sig. [2*(1-tailed)]	.947	.192	.277	**.012**	.327	**.063**

[a]. Not corrected for ties
[b]. Grouping Variable: Group

After obtaining these data, it was contended that the non-parametric statistical outcomes would be best and more appropriate to test, discuss and comment on the effect of treatments, research questions and hypotheses of the study, both because the number of participants was not high enough and because the tests of normality did not reveal satisfactory outcomes.

Consequently, in response to *Hypothesis 1* and *2* and/or *Research question 1* and *2* that addressed the issue of 'acquisition', it could be reported that although some differences were observed in all three cases of the PTs regarding the group statistics presented in Table 4.2., the further Mann-Whitney test revealed that there was no significant difference in accumulative vocabulary acquisition between the control and experiment groups. Considering the matter from the group statistics side, it could be interpreted that in total the students in the LtDE group (M= 50.55) had learned more words during the treatments than the LtPE (M= 46.25), which might be associated with the familiarity to the items and the definitions given during the activities and tests, or just the habitual tendencies of studying, that is to say, the accustomed study styles and strategies. Notwithstanding uncertainties of difference in the PTs, in the DPTs the statistical results revealed clear differences between the two groups. These will be discussed and presented in the following section.

4.1.2. Retention Difference Results

In order to find the answer(s) to *Hypothesis 3* and/or *Research question 3* that addressed the issue of 'retention', the DPTprod scores were extracted from the PTprodtotal scores (DIFprod), the DPTrec scores from the Ptrectotal scores (DIFrec), and the DPTtotal scores from the PTtotal scores (DIFtotal). This operation was carried out for both groups. Accordingly, the ultimate numbers would indicate less attrition of vocabulary knowledge if they were closer to zero, which would mean that all acquired words were remembered and retained.

Therefore, prior to proceeding to the statistical estimations, once again tests of normality were carried out to see the distribution of the grades in the groups across the parts of the tests. Table 4.5. presents the results. The tests of normality, once again but in

the experiment group this time, indicated inconsistencies in the distribution of the scores, which suggested that it would be more appropriate to carry out non-parametric statistical analyses, the results of which would be speculated on and discussed in due course. As it might be observed in Table 4.5., the DIFprod scores (.047) and DIFtotal scores (.021) of the experiment group did not secure the statistical limit for normality, as these values should be above .05 in order to secure the statistical requirements limit.

Table 4.5. Tests of normality for the differences of productive, receptive, and totals of post-test and delayed post-test scores in the control and experiment groups.

Group	Test	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Control	DIFprod	.103	20	.200*	.976	20	.869
	DIFrec	.144	20	.200*	.974	20	.827
	DIFtotal	.098	20	.200*	.939	20	.232
Experiment	DIFprod	.156	20	.200*	.903	20	**.047**
	DIFrec	.113	20	.200*	.956	20	.476
	DIFtotal	.158	20	.096	.884	20	**.021**

*. This is a lower bound of the true significance
[a]. Lilliefors Significance Correction

In order to have a closer look at the situation, the group statistics (Table 4.6.) were examined. As can be observed in Table 4.6., there were 20 students in each of the control and experiment groups. While the DIFprod scores of the control group were (M= 11.70 and SD= 6.513), these were (M= 5.30 and SD= 7.116) in the experiment group. Likewise, the DIFrec scores of the control group were (M= 6.55 and SD= 6.508), and (M= .95 and SD= 5.986) in the experiment group. In the DIFtotal these were (M= 19.25 and SD= 11.210) for the control group and (M= 6.25 and SD= 11.470) for the experiment group. The discrepancy observed between the two groups at first glance seems to be a big one, in favour of the experiment group this time, in all three cases. These data showed that accumulatively there was higher retention of vocabulary in total in the experiment group, despite a certain level of attrition of knowledge in both groups.

Table 4.6. Group statistics of differences of productive, receptive, and totals of post-test and delayed post-test scores in the control and experiment groups.

Test	Group	N	Mean	Std. Deviation	Std. Error Mean
DIFprod	Control	20	11.70	6.51395	1.45656
	Experiment	20	5.30	7.11633	1.59126
DIFrec	Control	20	6.55	6.50890	1.45543
	Experiment	20	.95	5.98661	1.33865
DIFtotal	Control	20	19.25	11.21031	2.50670
	Experiment	20	6.25	11.47021	2.56482

The data in Table 4.7. show the significant difference between the ultimate scores of the control and experiment groups in terms of independent samples t-test statistics. Results indicated that there was a significant difference in the DIFprod scores (p= .005), the DIFrec scores (p= .007), and the DIFtotal scores (p= .001). These outcomes suggested that the treatments that were carried out with the participants, and the employed approaches and methodologies were effective.

Table 4.7. Independent samples test results of the differences in the delayed post-tests.

	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig	t	df	Sig (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
DIFprod	.099	.755	2.967	38	**.005**	6.400	2.157	2.032	10.767
DIFrec	.216	.645	2.832	38	**.007**	5.600	1.977	1.596	9.603
DIFtotal	.221	.641	3.625	38	**.001**	13.000	3.586	5.739	20.260

Notwithstanding the indices of the independent samples test, it would once again be a rigorous approach to verification to analyse the ultimate output with the help of Mann-Whitney test since the tests of normality (Table 4.5.) revealed inconsistencies in the experiment group's DIFprod (p= .047), a value that was very close to the limit of significance level, and DIFtotal (p= .021). The non-parametric Mann-Whitney test results are displayed in Table 4.8.

Table 4.8. Mann-Whitney test results of the differences in the delayed post-tests.

	DIFprod	DIFrec	DIFtotal
Mann-Whitney U	91.000	101.500	77.000
Wilcoxon W	301.000	311.500	287.000
Z	-2.955	-2.670	-3.330
Asymp. Sig. (2-tailed)	.003	.008	.001
Exact Sig. [2*(1-tailed)]	**.003** [a]	**.007** [a]	**.001** [a]

[a]. Not corrected for ties
[b]. Grouping Variable: Group

The non-parametric statistics also verified the conclusions drawn from the independent samples t-test that the retention level of academic vocabulary was higher in the experiment group, which employed LtPE method, compared to that of the control group that used LtDE method. The Mann-Whitney test analyses revealed that there was significant difference between the two groups in the DPTprod scores (p= .003), the DPTrec scores (p= .007), and the DPTtotal scores (p= .001).

4.1.3. Questionnaire items results

Besides the SPSS data of the post-tests and delayed post-tests, there were also data obtained from the GDs questionnaires that provided relevant information about the opinions of the participants and their approaches to FLL/T and to the course, which might be discussed and interpreted to have affected their scores in the tests. As discussed previously, the materials that students are exposed to and the type of activities they are involved in should affect their motivation and diligence. Therefore, the questionnaires provided supplementary data about the beliefs of the students and their attitudes towards the treatments that were applied throughout the course. The quantitative items in the GEQ, CEQ, and MEQ and the responses of the students are presented and discussed in the following sections.

4.1.3.1. Responses given to the quantitative items of the GEQ

There were five quantitative items to consider in the GEQ. Each was a five-point Likert item that asked students to rate the given statements in a scale between 1 (least) and

5 (most). The Cronbach's Alpha was estimated as .83 for the total of five items, which suggested that the internal consistency was 'good', and thus, reliable. The data related to each item are presented in the following tables:

Table 4.9. *What is the most important element in foreign language learning according to you?*

Responses	Mean	SD
Vocabulary	4.09	1.07
Grammar	3.37	.91
Reading & Listening (receptive skills)	4.20	.80
Writing & Speaking (productive skills)	4.51	.95

This item was prepared and asked to the students to uncover their levels of interest in vocabulary, grammar, receptive skills, and productive skills and to get a view about the thoughts, priorities, and beliefs of the students in relation to the fields that are served or presented to them in FL education, and also within the ETMD course. The current study concentrates on vocabulary, a field which proved to be in line with the interest of the students (M= 4.09, SD= 1.07), while grammar (M= 3.37, SD= .91) was shown not to be among the favourite subjects, and this was already deliberately not focused on during the treatments. Throughout the course, the students also had to be involved in tasks and activities that necessitated the usage of receptive and productive skills (M= 4.20, SD= .80; and M= 4.51, SD= .95, respectively), which also revealed to be favoured and seriously respected by the participants. Therefore, it would be possible to propose that the field contents of the study were in parallel with the interests, beliefs, opinions, and expectations of the students in general, which should presumably have maintained their motivation at least if not increased it. In other words, one might state that the participants were not offered or urged to work in fields that they did not care about, did not need, or were not very interested in. Although the primary aim of the ETMD course was to improve the computing skills, ICT knowledge, and related issues, and not to improve their linguistic skills, the students still had the opportunity to progress in these as a side effect, which should be seen as a positive contribution not only to the professional development of the teacher trainees but also to their mental and emotional conditions. The course did not bore them or lead them to think of questions such as "*Why am I learning/doing these?*" or "*Are*

these tasks and/or contents appropriate and beneficial to my education as a prospective teacher of the English language?" etc.

Table 4.10. *Which of the following is more useful or helpful for a foreign language learner according to you?*

Responses	Mean	SD
Instructor/Teacher	4.31	1.02
Books/Printed materials	3.29	.99
The Internet	3.51	.92
Computers/Digital resources	3.69	.93

The item in Table 4.10. was prepared and asked to the students to uncover the inherent opinions about and attitudes towards the implicit principles of autonomous, lifelong learning, distance education, etc. which necessitate the activation of independent, flexible, digital or online, etc. working habits and tendencies. The current data revealed that the participants possessed more or less traditional habits that guided them towards a modernist stance, which taught that a teacher/instructor as an authority would be the best or most reliable source to learn something and benefit from. Nevertheless, the responses of the students still showed some serious tendencies towards the advantages and value of the Internet and computers/digital sources (M= 3.51, SD= .92; and M= 3.69, SD= .93, respectively) in learning. These indicate that although the students have some motives and tendencies towards a postmodernist education, they lack the guidance and experience that will encourage individual and independent learning, and improve autonomy which should be enhanced by the facilities of the digital world. Therefore, it seems that the "grand narratives" are very strong barriers that stand before change and innovation in education.

Table 4.11. *In what way mostly has the course (ETMD) contributed to you personally?*

Responses	Mean	SD
Vocabulary-Grammar	3.86	1.19
Reading-Listening	3.00	1.19
Writing-Speaking	2.80	1.30
Practical skills	4.06	1.17
Theoretical skills	4.00	1.09

The item in Table 4.11. was prepared and asked to the students to reveal their feelings and opinions about what the course had given them, or to what extent they benefited from the given areas. The responses revealed that the course in general contributed more to the practical and theoretical skills (M= 4.06, SD= 1.17; and M= 4.00, SD= 1.09, respectively) of the students, which were followed by the vocabulary-grammar pair (M= 3.86, SD= 1.19). The mean value of the vocabulary-grammar pair must have been affected by each other, because most of the students indicated that their vocabulary knowledge had increased significantly; but since there was no specific focus on grammar during the activities, the students might have rated this pair by lower points than one they would rate if vocabulary was given as a separate item. The numbers showed that the course contributed least to their productive skills (writing and speaking- M= 2.80, SD= 1.30), while the contribution to the receptive skills (reading and listening- M= 3.00, SD= 1.19) was slightly higher. Although they read and wrote a lot throughout the course, their evaluation might have been affected by the "explicit and implicit" gain aspect, and thus, led them to rate mostly the explicit acquisitions rather than considering the implicit ones too. Yet, it might be an objective fact that the participants did not do listening and/or speaking activities much during the tasks, which might be a factor that might have affected the total scores, just as in the case of the vocabulary-grammar pair. Overall, these results should suggest that the course placed importance on practice that was balanced with theory, and facilitated the improvement of vocabulary knowledge as an addition.

Table 4.12. *To what degree is the following important in education according to you?*

Responses	Mean	SD
Attending classes regularly	3.94	1.26
Regular tasks and exercises	4.29	.86
Using technology	4.20	.90
Teacher attitudes	4.34	.87
Classmates' attitudes	3.63	1.19

The item in Table 4.12. was prepared and asked to the students to uncover their beliefs related to the importance of the given items in education. These items implicitly evaluated their tendencies and experiences as well as their priorities that might qualitatively affect the whole educational process. For instance, for learners who are used

to in-classroom education, the ETMD course might have been hard to adapt to, because the system did not necessarily require them to come and sit at the desks or to learn from what was going on around, within the four walls. These types of habits might create disadvantageous conditions for those who expected the same applications. Likewise, for those who believe that giving regular tasks and exercises would bore and tire learners, the task-based approach that was adopted in the current study might create unpleasant moments or experiences. In a similar way, if learners were far from technology, using so much technology in the course would make them drop and lose their interests or attention besides their self-confidence. Therefore, the statistical numbers revealed to what extent the participants of the study were familiar with or ready for the whole course delivery procedures and involvement of technology. Additionally, their opinions about the effect of teacher and classmates' attitudes were evaluated since any kind of collaborative learning should affect persons, either positively or negatively. The responses of the students also revealed the degree of sensitivity towards human relations, and how much their motivation was prone to be affected by these. The numbers revealed high levels of importance from the participants' point of view related to teacher attitudes (M= 4.34, SD= .87), giving/having regular tasks and exercises (M= 4.29, SD= .86), and using technology (M= 4.20, SD= .90). Attending classes regularly (M= 3.94, SD= 1.26) and classmates' attitudes (M= 3.63, SD= 1.19) were observed to be still high but lower than the other three items.

Table 4.13. *For what skills or elements can technology be used mostly?*

Responses	Mean	SD
Vocabulary	4.40	1.06
Grammar	3.24	1.13
Reading	3.82	1.03
Listening	4.40	1.12
Writing	2.79	1.17
Speaking	3.61	1.20
Practice	4.38	.92
Theory	3.48	1.12

The item in Table 4.13. was prepared and asked to the students to understand their perceptions related to using technology for language skills and educational actions such as practice and theory. These data reveal for what skills participants use technology or think

technology can be used mostly. It was presumed that the responses would reflect their general experiences and mental readiness for taking advantage of technology to improve and/or support their academic functions. It was observed that the participants believed that technology could be best used for vocabulary and listening (M= 4.40, SD= 1.06; and M= 4.40, SD= 1.12, respectively), which were followed by practising skills (M= 4.38, SD= .92). These suggest that students, more or less, know how to use technology to improve these. They have already searched many vocabulary websites and related materials online and have also used and prepared some themselves. They have used various audio files, cut and converted them, used YouTube extensively, listened to different files, and adopted and adapted these to prepare educational materials, etc. Therefore, it is not surprising that they have given the highest ratings to the three areas mentioned. It seems that explicit evaluations tend to be directly affected by the explicit experiences of the students, and shape their mental readiness or motivation for relevant queries. The lowest rates were given to using technology for writing skills (M= 2.79, SD= 1.17), which suggested that students did not consider every type of writing activity, such as writing e-mails, writing notes in weblogs, writing questions and exercise materials, etc., as activities that would improve their writing skills. Notwithstanding the current data, the participants were involved in writing activities and tasks, not less often than other activities, and sometimes even more often than others that aimed at the development of other skills. Perhaps it was their traditional side (the effect of the "grand narratives" of the modern) that taught or suggested to them that in order to improve their writing skills, they had to write formal paragraphs or long compositions. The rates of the remaining three skills (grammar, reading, speaking, and theory) were around the same border (M= 3.24, SD= 1.13; M= 3.82, SD= 1.03; M= 3.61, SD= 1.20; and M= 3.48, SD= 1.12, respectively), which showed that the general perception of the participants was that technology could be used for the improvement of all skills, although their mental readiness might reveal differences at some stages.

As the GEQ was applied prior to the treatments, the researcher saw no objection in asking students to write their names in the questionnaire, unlike the CEQ and MEQ, to be able to compare the general tendencies of the participants in the two groups, in due course. When data were analysed, no significant differences between the students in the two groups or any specific characteristics of them were observed, which suggests that the qualitative aspects of the participants was also similar at the beginning of the study, and

therefore their attitudes during the treatments should not have been affected very differently by external factors such as static knowledge or fixed beliefs, etc.

4.1.3.2. Responses given to the quantitative items of the CEQ

There were three items to consider in the CEQ. Each was a five-point Likert item that asked students to rate the given statements in a scale from 'strongly disagree (1)' towards 'strongly agree (5)'. The Cronbach's Alpha was estimated as .81 for the two items in Table 4.14, which suggested that the internal consistency was 'good', and thus, reliable. The data related to each item are presented in the following tables:

Table 4.14. The quantitative items in the CEQ.

Responses	Mean	SD
I would use the Internet and computers during my teaching practices	4.25	.80
I would use the Internet and computers during my learning experiences	4.18	.98

These items were prepared and asked to the students to find out if they thought that using the Internet and computers was more appropriate during teaching or learning. The participants were presumed to respond to these items by consulting their experience of the ETMD course. Because each student had to use the Internet and computers both for preparing and doing online tests and exercises, they were presupposed to be able to compare and contrast the two conditions, and evaluate the matter in the most appropriate way individually. As the participants were asked to evaluate the ETMD course that they took from the researcher, in the CEQ the researcher did not ask them to write their names, so that they could feel more comfortable. The data showed that participants would use the Internet and computers both for teaching practices (M= 4.25, SD= .80), and for learning practices (M= 4.18, SD= .98). There was not a big difference between the two options. These results indicate that the course has demonstrated equal examples and opportunities for how technology could be integrated in both options (i.e. teaching and learning).

The researcher also prepared an item to ask students to define the course with regard to their feelings. In this item the researcher provided six words (pleasant, exhausting, easy,

complicated, necessary, and irrelevant), to rate in the scale between 1 (least) and 5 (most). The means of the responses are estimated as follows:

Table 4.15. *How would you rate your experience related to the ETMD course?*

Responses	Mean	SD
Pleasant	3.83	1.23
Exhausting	2.66	1.40
Easy	3.25	1.24
Complicated	2.59	1.09
Necessary	4.32	.82
Irrelevant	1.18	.48

According to the results, the highest rated definition was 'necessary' (M= 4.32, SD= .82), which indicated that the participants felt that they would be in need of what they had experienced or learned in the course. The mean scores of 'pleasant' and 'easy' were (M= 3.83, SD= 1.23, and M= 3.25, SD= 1.24, respectively). When the scale between 1 and 5 is considered, this shows that the students felt more towards the positive side (strongly agree), which revealed more positive attitudes and feelings than negative ones. On the other hand, the rates for 'exhausting', 'complicated, and 'irrelevant' were (M= 2.66, SD= 1.40; M= 2.59, SD= 1.09; and M= 1.18, SD= .48, respectively) which suggests that the participants felt more towards the negative side (strongly disagree) for the given definitions related to their experience of the course.

4.1.3.3. Responses given to the quantitative items of the MEQ

There were ten items to consider in the MEQ. Each was a five-point Likert item that asked students to rate the given statements in a scale from 'strongly disagree (1)' towards 'strongly agree (5)'. The Cronbach's Alpha was estimated as .75 for the total of ten items, which suggested that the internal consistency was 'acceptable', and thus, reliable. The data related to each item are presented in the following tables:

Table 4.16. The quantitative items in the MEQ.

Items	Mean	SD
I feel motivated while PREPARING digital tests and quizzes	3.34	.99
I feel motivated while DOING exercises online	3.74	.92
I feel motivated when studying AT HOME on my own	4.03	.88
I feel motivated when studying IN THE CLASS with the assistance of the instructor and/or classmates	3.24	1.16
Working with HotPotatoes was a motivating activity for me	3.94	1.12
Working with WordPress Blogging was a motivating activity for me	3.68	1.07
Working with MOODLE was a motivating activity for me	3.65	1.18
Preparing online Questionnaires was a motivating activity for me	3.76	1.15
I feel motivated while working on the assigned tasks of the week	3.53	.98
Working with computers and online rather than in a traditional in-classroom way is more motivating for me	4.11	1.11

These items were prepared and asked to the students to find out to what degree the contents and methods of the ETMD course motivated or caught the interest of the students, and their opinions about some specific topics in relation to traditional and autonomous learning. During the weeks of the course, students were introduced to some software such as HotPotatoes, MOODLE, Google Documents, and WordPress Blogging that helped participants to create online materials, and to publish these on the web. It was revealed that students enjoyed working with these facilities, which was supported also by the declarations of the students during the interview sessions (these will be presented in the qualitative results section). During the activities in the classroom and considering the works of the students that they prepared throughout the given tasks, it was observed that the HotPotatoes software (M= 3.94, SD= 1.12) was an interesting and useful tool for the participants, just like MOODLE (M= 3.65, SD= 1.18) which was seen as more complicated however. Likewise, the Google Documents (M= 3.76, SD= 1.15), and WordPress Blogging (M= 3.68, SD= 1.07) facilities caught the interest of the students, so they really enjoyed working with these. It was also attention catching that students enjoyed the flexibility whereby the course allowed them to work and study partially at home or out

of the classroom (M= 4.03, SD= .88), while the motivation for being tied in the classroom environment only was a bit lower (M= 3.24, SD= 1.16). Moreover, working with computers and online rather than in a traditional in-classroom way (M= 4.11, SD= 1.11) was seriously favoured by the students. Additionally, the participants indicated that they felt motivated while working on the assigned tasks (M= 3.53, SD= .98) as well as while preparing (M= 3.34, SD= .99) and doing (M= 3.74, SD= .92) digital tests and exercises. The lower rate of preparing compared with doing could be explained by the work load of the students, which was duplicated by the assignments and presentations they had to do on other courses as well.

4.1.4. Overall Interpretation and Discussion of the Quantitative Results

Having presented the full report of the quantitative results revealed by the current study, some significant extracts from these could be emphasised in relation to the hypotheses and research questions. The conclusions derived from the quantitative data are as follows:

1. Is there any difference in the total vocabulary 'acquisition' rate between the participants in the control (LtDE) and experiment (LtPE) groups?

a) Is there any difference in the correctly done items in the receptive items of the post-tests between the groups? It was revealed that there was a difference in favour of the LtDE group, but that this was not significant statistically.

b) Is there any difference in the correctly done items in the productive items of the post-tests between the groups? It was revealed that there was a slight difference in favour of the LtDE group, but not a statistically significant one.

c) Is there any statistical significance in the total scores of the control and experiment groups in the post-tests between the groups? It was revealed that although there was a difference in favour of the LtDE group, it wasn't statistically significant.

2. Is there any difference in the total delayed post-test results of the participants in the control (LtDE) and experiment (LtPE) groups?

a) Is there any difference in the correctly done items in the receptive items of the delayed post-tests between the groups? It was revealed that there was no significant difference between the correctly done items of the control and experiment groups.

b) Is there any difference in the correctly done items in the productive items of the delayed post-tests between the groups? It was revealed that there was a difference in favour of the LtPE group that was *statistically significant**.

c) Is there any statistical significance in the total scores of the control and experiment groups in the delayed post-tests between the groups? It was revealed that although there was a difference in favour of the LtPE group, it wasn't statistically significant.

3. Is there any difference in the total vocabulary 'retention' rate between the participants in the control (LtDE) and experiment (LtPE) groups?

a) Is there any statistical significance in the difference in the receptive items of the post-tests and delayed post-tests between the groups? It was revealed that there was a difference in favour of the LtPE group that was *statistically significant**.

b) Is there any statistical significance in the difference in the productive items of the post-tests and delayed post-tests between the groups? It was revealed that there was a difference in favour of the LtPE group that was *statistically significant**.

c) Is there any statistical significance in the difference in the totals of the post-tests and delayed post-tests between the groups? It was revealed that there was a *statistically significant** difference in favour of the LtPE group, that is, that less loss of vocabulary knowledge was observed in the experiment group.

In sum, the LtPE method did not result in less acquisition of academic vocabulary compared to the traditional LtDE method in the present study. Moreover, the significant difference in the DPTprod suggests that the LtPE method brings positive scaffolding opportunities for students to remember the words that they deal with productively, that is, that they write, rather than when they just deal with these receptively. It might also be proposed that independent and/or individual engagement, the extra brain power that would

be used during the activities, and the specific concentration of the learners who will be the active doers of the activity or the creators of the content, should result in longer lasting acquisitions. The difference between the students in the LtDE and LtPE was that the LtPE group created their own exercises by using the given words, while the LtDE group only spent time on the exercises they were set. Although the students in the LtDE, too, wrote the letters of the words the initial letters of which were given, and then checked their results to receive feedback on the wrong and right responses in the items of the tests, the students in the LtPE seemed to benefit from the advantage of creating the sentences which would support their semantic schemas, and which would thus be more meaningful to remember and recall once the given words are met. It was observed that the positive contribution of the LtPE in the productive items was not same as in the receptive items. Although there was some slight difference in favour of the LtPE, it was not statistically significant. Therefore, it might be suggested that the LtPE, or the LdL are advantageous or superior when compared to the traditional methods where the teachers are at the centre of the educational processes, only or mostly in productive conditions. Wherever the goals are receptive, it seems that there is no significant advantage or superiority in using one method over other. However, when the retained number of words was estimated by extracting the PT results from the DPT results, it was revealed that a higher number of vocabularies were retained in both the productive and receptive conditions. The statistical significances of the results in the tests are presented in Figure 4.1.

Figure 4.1. The results of the statistically significant differences between the LtDE and LtPE groups.
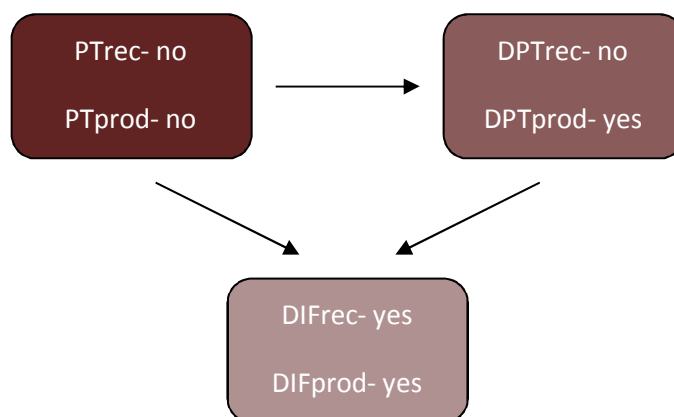
Besides the tests results, some other quantitative data were collected with the help of the questionnaires that were prepared. These data point out to additional important matters that might be associated not only with vocabulary acquisition and retention, but also other essential matters such as the beliefs of the participants related to the essential elements in FL education, and the contribution of the ETMD course to their education that can be compared to find out the degree to which their beliefs were met or realised. Additionally, these data provide hints about the attitudes of the participants in relation to some elements of autonomous and/or online learning; and opinions about using technology for various components in FL education. Moreover, these altogether might be incorporated into the motivational and flow states of the students. The answers to the following questions were examined through the questionnaire items.

4. Is there any positive attitude towards the exam-free formative evaluation that will depend on the assessment of weekly tasks?

5. Does the use of technology and online and autonomous principles positively affect the motivation of the students?

6. Do the opinions and beliefs of the participants related to the importance of specific topics, content, and elements in FL education, affect the flow state during the activities?

Although these questions will be investigated more deeply in the qualitative part of the study, a summative and more general evaluation and discussion will be provided here as well.

The GEQ data provided a crosscheck related to the students' beliefs about the educational components and what they actually experienced during the course. It was revealed that to a great extent, students believed in the importance of vocabulary, using technology, task-based education, and the atmosphere in education that could be enhanced by the positive attitudes of the teacher/instructor. The students also stressed that productive and practical skills are very significant, and maintained that technology could be used primarily for vocabulary, listening, and practice. The evidence recorded by the GEQ items indicates that the structure as well as the content and approach of the study that was realised through the ETMD course was in line with the beliefs of the students whose attitudes and opinions were also regarded in the classes. In other words, there was no great

or serious conflict in the content and procedures of the course between the expectations and beliefs of the students and the provisions of the instructor. Therefore, this led to harmonious and smooth learning experiences. The learners were happy with what they received, which should have affected their continuous motivation and flow experiences. This is more than a traditional educational process, which puts the students at the centre and values individual needs and interests rather than imposing fixed content and procedures. Additionally, other factors and aspects of the postmodern approach to education (e.g. Uzun, 2012) were facilitated by enhancing the use of T/CBL, informal, and naturalistic conditions to the extent that it was possible. Also, the CEQ showed that the participants were quite keen to use the Internet and computers both for teaching and learning experiences, which indicates that there was no fear of technology and/or online education regarding the group of participants.

Additionally, the MEQ revealed serious positive reactions from the students in relation to the course content and procedures. The participants indicated higher motivational states when studying at home compared to studying in class with the assistance of the instructor and other classmates. This seemed to be somehow in contrast to their belief that the instructor was the most useful or helpful component for a FL learner in the GEQ. Nevertheless, it might be also an indicator that although students benefit a great deal from the teacher and need his/her assistance, they feel more motivated when studying autonomously, or do not necessarily need the instructor in order to feel increased motivation. It was also noticed that the participants preferred working with computers and online rather than in a traditional in-classroom way, which was additional evidence for the discussions that individual, autonomous, and technology facilitated educational conditions improve the motivation of the students. Besides these, it was determined that the participants were slightly more motivated while doing exercises online compared to when they were preparing digital materials. This might be speculated to be due to the fact that preparing digital materials is more or less a demanding activity, which might tire the students. However, doing tests is what they are already used to and requires less effort. Moreover, the students might have had the feeling that they would not need or use the materials that they prepare, which should be carefully and seriously investigated, because flow and motivation might be affected by the beliefs of pragmatism and necessity. Despite this, the mean rate of working with HotPotatoes, the software they used for preparing digital tests, was quite high and indicates a good motivational level.

Further, it should be emphasised that task-based course delivery that uses formative assessment and/or evaluation seem to motivate students more often or for longer intervals compared to exam focused education that not only concentrates on summative results but also causes serious anxiety for the learners, and thus, makes education and learning some kind of unpleasant chore.

4.2. Qualitative Results and Discussion

The quantitative results provide an idea about the "mechanic" outcome(s) of the treatments. However, in social sciences, when the subject is human beings and the treatments in education are not the same as the ones that occur in isolated laboratory environments of science, there should certainly be much more to think about besides the quantitative statistical data, and to consider before reaching conclusions, whether they are local or general. Therefore, the researcher has prepared and forwarded open ended questions to survey some relevant background and valid present details with the purpose of understanding both the participants (what/how they feel and think) and the whole process better. There were five items in the CEQ and two items in the GEQ that provided qualitative data to consider closely. Moreover, the interview sessions that were conducted with the participants provided additional qualitative matters to consider with serious contribution to the study, especially in terms of flow measurement and evaluation.

4.2.1. The responses given to the items in the CEQ

The questions forwarded here were directly relevant to the outcomes of the study, the researcher believes, because they reveal some details from the students' point of view, which reflect important scenes related to the success or failure of the students in creating flow or motivation. The students were allowed to respond either in English or Turkish, and in the way they felt most comfortable. The researcher used *content/textual analysis*[50] to study the responses of the students. The responses of the participants were read thoroughly and the common opinions/topics were noted down, summarised, and grouped. The numbers and frequencies of the responses are presented below each item as follows:

---

[50] http://en.wikipedia.org/wiki/Content_analysis

Table 4.17. *What do you think about the task-based, and exam-free course delivery and approach?*

Responses	Number	Frequency %
Stress and anxiety free experiences	39	97.5
Rich and permanent learning through practice	38	95
Appropriate formative evaluation	37	92,5
A balance and bridge between theory and practice	33	82,5
Useful approach and method for retention of knowledge	23	57,5
Improving autonomy skills and habits	15	37,5
Teaches being punctual, organised, and responsible	11	27,5
I will use this approach and method	10	25

Table 4.18. *How have you felt during the computer-assisted course delivery procedures?*

Responses	Number	Frequency %
Motivated, satisfied, entertained	40	100
Comfortable and free of stress or pressure	38	95
Gained useful information and skills	35	87,5
Felt good to have learnt new things	34	85
Conscious about the process and acquisitions	29	72,5
Felt close support and guidance	27	67,5
Ease in learning and practising	21	52,5
Willing to come to the lessons	20	50
Challenged at times	14	35
Learnt in a more humanistic way, without any pressure	8	20
Sometimes overloaded and exhausted	7	17,5
Felt very illiterate	2	5
Sometimes worried by being autonomous	2	5

Table 4.19. *Have you met any difficulties during the course? Please specify if any.*

Responses	Number	Frequency %
Insufficient physical environment	21	52,5
No difficulty at all	20	50
Lack of equipment and software	19	47,5
Partial difficulty during some tasks and activities	19	47,5
Course proceedings (Catching up with the course tempo)	18	45
Slow Internet connection	10	25
Sometimes lack of confidence	4	10
Difficulties stemming from personal ignorance	3	7,5
Unexpected situations	2	5

Table 4.20. *What are your opinions about "online, distance, self-learning, or digital education"?*

Responses	Number	Frequency %
Blended education would be better	24	60
Create positive effects on self-management	24	60
Provide rich educational sources and environments	24	60
Enhance and improve technology related skills	23	57,5
Create rich, simple, and enjoyable learning experiences	23	57,5
Not very good for communication skills	18	45
Teach being autonomous and disciplined	15	37,5
Traditional learning environments are better	15	37,5
Might be disadvantageous for those who are not technology prone	4	10
Effective in satisfying the needs of the new generation students	3	7,5
Might be ineffective and insufficient for learning	3	7,5
Trigger the creation of self-regulated learning strategies	2	5
Provide great chances for individual development	2	5
Time saving	2	5
Provide chances for social learning	2	5

Table 4.21. *How many hours a week do you spend on the Internet?*

Responses	Number	Frequency %
1 hour or less	0	0
2-5 hours	6	15
6-9 hours	5	12,5
10-15 hours	11	27,5
More than 15 hours	18	45

This item was prepared to understand the computing and Internet navigation and usage skills of the students to be discussed and commented on in due course. It was revealed that all students use the Internet, and that 85% of them spend 6 or more hours a week, which is a serious length of time that also should be an indicator of how prone learners are to the virtual world. They either need or like to be online, whether for education or relaxation and entertainment purposes.

Table 4.22. *What can you say about the content of the course?* (in one word)

Responses	Number	Frequency %
Useful	19	47,5
Interesting	9	22,5
Challenging	6	15
Motivating	6	15
Boring	0	0
Not useful	0	0
Other	0	0

In this item the researcher provided six words (interesting, boring, useful, not useful, challenging, and motivating), as examples, to choose from or an option to enter their own word (other) to describe the course. This item was also in line with and acted as a crosscheck with the item where the researcher asked them to rate their experiences related to the course with the given definitions (pleasant, exhausting, easy, complicated, necessary, and irrelevant). It was observed that 70% of the participants thought that the content of the course was useful and interesting, and 30% thought that it was challenging but also motivating. These outcomes create a sense that when necessity and usefulness is accompanied by pleasant and interesting features, it leads to motivation. This will be discussed further and in detail in the following section.

4.2.2. The responses given to the items in the GEQ

The following two open-ended items were prepared to collect the opinions of the students related to their perceptions of and expectations about a good education, and to testing/grading procedures. The forwarded questions are important because they reveal the participants' approaches to the education that they receive in general, and the treatments they have been assigned during the ETMD course, which might be a factor that should affect their motivation and learning levels as well. Their responses would also help to understand to what degree their expectations and opinions overlap with what they receive. The responses of the participants were read thoroughly and the common opinions/topics were noted down, summarised, and grouped below each item as follows:

How should education be according to you (your opinion about the ideal education)?

The participants' responses revealed concerns in three major areas: a) political and philosophical approaches and methodologies, b) teacher and student roles and responsibilities, and c) course contents and materials. The following tables provide examples of the opinions of the students:

Table 4.23. Opinions concerned with political and philosophical approaches and methodologies.

- *It should divide students by abilities.*
- *It should create the possibility to change class level.*
- *It must provide conditions where students will be willing to come to school.*
- *Lessons should be learner- centred.*
- *Course policies, steps, and procedures should be clearly stated and explained.*
- *It should be task-based and include and support the use of technology.*
- *Should be student-focused rather than subject-focused.*
- *The first priority aim should be to help students learn and use what they learn.*
- *Some courses seem to be just some impositions in the curriculum that we have to take, but we would not remember anything about them after the exam or when we pass the exam(s). Moreover, we keep yelling throughout the semester that the courses are so useless.*
- *Correct balance between theory and practice is necessary, which will put practice before theory. Learning through practice is very useful for permanent learning.*
- *It should be just the opposite of the Turkish educational system.*
- *It must be as close to real life as possible, that is, practical skills should be improved. For instance, what will I do with all this theoretical information if I don't know anything about first-aid when a student in my class has an epileptic attack? I cannot heal him/her with a story, can I?*
- *Should be designed more around practice.*
- *Personal needs and interests should be granted more.*
- *Student fears and exam anxieties should be removed; negative feelings should be diminished.*
- *A wide range of options should be provided to students; more flexible environments are needed*
- *Technology must be used to improve learning skills.*
- *Everyone should be provided with the education s/he yearns for, not the one exposed to him/her. Exam and assessment procedures should be reviewed.*
- *Implicit methodologies should be employed more often.*
- *The methodology of the present course is a good approach to education. I would use a similar one.*
- *More practice should be enabled.*
- *Implicit teaching helps students to learn better.*

- *A stress free environment is needed. Forcing people to learn something will certainly be effective, but in the short-term only. But willingness instead of fear is better for long-term learning.*
- *Communication areas should be provided for students and teachers, so that they can interact with the whole world, not just the local environment.*
- *Concentrating more on the output and not just on the input is important.*
- *Education should be determined according to students (needs, background, desires, etc.), not according to subjects or other political, social, religious, etc. issues.*
- *It must be based on improving the speaking and communication skills of the learners as well as on developing self-confidence.*
- *It should allow people to express and realise themselves more, rather than pushing them towards mechanical information and behaviours.*
- *It should be very flexible, transformative, and modular.*
- *It should be like strategy training, that is, it should aim at teaching how to learn rather than teaching fixed information or skills.*
- *Education should aim at motivating the students in any particular area they might be interested in or have talent in.*
- *The classes should be places of illumination and self-satisfaction, not a boring environment; education should be enjoyable!!!*
- *Education should aim at creating responsibility for self-learning and development.*
- *It must be constructed both by the teachers and students, not only by an authority that will impose top-down decisions.*
- *The current system should be changed immediately.*
- *Education should be "theory free", and "full of practice".*
- *Education should be both at school as usual and on the internet when needed.*
- *It should be learner-centred. Learners should be free about which courses they take. Students will be more successful when they like learning and what they learn.*
- *Education should use technology.*

Table 4.24. Opinions concerned with teacher and student roles and responsibilities.

- *Students should attend classes regularly.*
- *Teachers should be helpful, creative, collaborative, and facilitate learning.*
- *Students should be active in class.*
- *The teacher should be friendly, understanding, and sympathetic to the students.*
- *There should be mutual, two-way respect.*
- *Education should trigger and enable students to produce rather than to ask them to perceive; to share their ideas freely; to be in real need of using the information given.*
- *The attitudes of teachers are very important. Some teachers look at our faces as if they are looking at a wall, which decreases our motivation.*
- *It must be very clear and teachers should always be at the disposal of the students for support and consultation.*

- *Teachers should be aware of the innovations in the field and anything related to education, so that they can apply them in their classes, as a key for ideal education.*
- *Students learn by doing and working collaboratively, so that they can learn from one another and teach one another. The teacher should be the one who supports this.*
- *Teachers must speak and provide what their learners need, not what the curriculum or the authorities impose.*

Table 4.25. Opinions concerned with course contents, techniques, and materials.

- *If technology is used, everything should be set and guaranteed prior to activating technology in education.*
- *Activities with time limitation should be given when the internet connection is fast and strong enough.*
- *Websites should be fast and properly working. Otherwise they get stuck or disconnected.*
- *Technology must be used and supported.*
- *There should be more activities that will enhance and trigger the use of technology.*
- *Permanent acquisitions, which would necessitate the use of not only books or boring methods and materials, but also different visual and audio sources should be aimed at as well as more opportunities for practice.*
- *Education must be supported by technology.*
- *I feel more motivated when I use my computer.*
- *Lessons seem to me like games when it comes to computers or technology.*
- *More techno-classes should be provided.*
- *More visual content should be included and involved.*

As it might be noticed, the participants' concerns about the political and philosophical approaches and methodologies are three times as common as their concerns about other issues. It was attention catching that the opinions and propositions of the students were very conscious and sensible, which should teach us that educational policies would benefit from consulting learners rather than working behind closed doors in offices and involving only the authorities from the teaching side. It seems that learners, specifically at university level, know what they need and want, and also how they want these.

Some views such as "It must provide conditions where students will be willing to come to school.", "Some courses seem to be just some impositions in the curriculum that we have to take, but we would not remember anything about them after the exam or when we pass the exam(s). Moreover, we keep yelling throughout the semester that the courses

are so useless.", "It should be just the opposite of the Turkish educational system.", "It must be as close to real life as possible, that is, practical skills should be improved. For instance, what will I do with all this theoretical information if I don't know anything about first-aid when a student in my class has an epileptic attack? I cannot heal him/her with a story, can I? ", "Everyone should be provided with the education s/he yearns for, not the one exposed to him/her. Exam and assessment procedures should be reviewed.", "A stress free environment is needed. Forcing people to learn something will certainly be effective, but in the short-term only. But willingness instead of fear is better for long-term learning.", "Education should be determined according to students (needs, background, desires, etc.), not according to subjects or other political, social, religious, etc. issues.", "It should allow people to express and realise themselves more, rather than pushing them towards mechanical information and behaviours.", "It should be like strategy training, that is, it should aim at teaching how to learn rather than teaching fixed information or skills.", "The classes should be places of illumination and self-satisfaction, not a boring environment; education should be enjoyable!!!", and "It must be constructed both by the teachers and students, not only by an authority that will impose top-down decisions." actually indicate that the learners not only are not satisfied with what they take but also expect changes in the way they are treated. These voices of the students should be heard by the concerned parties, and the necessary political and philosophical steps should be taken urgently to meet the needs and expectations of the learners, if education is primarily for the individual and not only for society.

Additionally, participants' concerns related to teacher and student roles and responsibilities as well as to the educational content, techniques, and materials such as "Education should trigger and enable students to produce rather than to ask them to perceive; to share their ideas freely; to be in real need of using the information given.", "Teachers should be aware of the innovations in the field and anything related to education, so that they can apply them in their classes, as a key for ideal education.", "Students learn by doing and working collaboratively, so that they can learn from one another and teach one another. The teacher should be the one who supports this.", "Teachers must speak and provide what their learners need, not what the curriculum or the authorities impose.", "There should be more activities that will enhance and trigger the use of technology.", "Permanent acquisitions, which would necessitate the use of not only books or boring methods and materials, but of different visual and audio sources should be

aimed at as well as more opportunities for practice.", and "Lessons seem to me like games when it comes to computers or technology." indicate that there is a need for continuous innovation and improvement in the qualification of teachers/educators and of other educational elements.

How should testing/grading in education be according to you (your opinion about the ideal grading system and/or exams)?

This item was prepared to find out to what extent that our perspectives and beliefs as teachers/educators match the views, expectations, and needs of our students whom we evaluate and assess unilaterally. This is a very important aspect of education, because it is one of the major factors that guides all teaching and learning processes, and affects the motivation and attitudes of those involved. The responses of the students were summarised and presented according to the opinions that were 'for' and 'against' testing and grading, and also the opinions that provided neutral perspectives in general as well as the evaluation of philosophies of the current assessment system. The following tables provide examples of the opinions of the students:

Table 4.26. Opinions that were 'for' testing/grading and/or the current assessment system.

- *The current system is good enough. How else can assessment be done? Of course exams should be used as they are in all other places all over the world.*
- *Testing is an ideal grading system but wrong answers should erase true ones in order to prevent students' answering randomly.*
- *It should be used. It's a more effective way.*
- *I am really nervous when we have exams, but this grading system is a more effective form because I get high marks.*
- *The evaluation and assessment system of the present course is great but I think we can not apply this in all lessons. Because of this, exams are a must since we need to know whether the students have learnt the lesson or not.*

Table 4.27. Opinions that were 'against' testing/grading, and/or the current assessment system.

- *Attending classes regularly and practising the things that are learnt is the ideal grading system. I am opposed to exams.*
- *Exams are not helpful because students study for grades not for learning something new, or for practising and applying the things s/he learns.*

- *Throughout the semester only some topics or subjects are selected and forwarded to students, and we are expected to respond to these in forty minutes or so. This is totally nonsense and wrong!*
- *Assessing through exams and tests is not good. I do not believe in summative assessment that values the end result only.*
- *The exams and papers are all a waste of time. If we want to teach something to our students, we should check what they can do in the long term, not in an approximately 45-minute time limit. Therefore, task-based systems are more useful in the long term.*
- *Exams are very unnecessary because exams don't show whether we know or not. They are useful only to pass the course, and then to forget what is memorised. So, testing and grading should aim at leading people towards more permanent learning, skills, attitudes, and habit formation.*
- *Teachers first teach me what I am not interested in and in a way that is not suitable to me, and then again they assess me in their own way, in the way they see it appropriate, and in the end they judge me as unsuccessful!*
- *Examinations have no use for students. Learners should be given opportunities to apply what they learn.*
- *Exams do not help students at all; they are for the teachers and authorities.*
- *Exams only cause stress in students.*

Table 4.28. Opinions that provided neutral perspectives or evaluation of the current assessment policy/philosophy/system.

- *Regular tasks and exercises are better as they require continuous and formative assessment and evaluation, which is better than concentrating on exam grades.*
- *Exam styles should not be fixed but should appeal to every student, if they really have to be used.*
- *If I need to speak about the ETMD course, I should state very confidently that the approach is ideal because it not only helps learners to learn and practise something within the course delivery process, but also enables fair evaluation through weekly tasks and exercises. Your method is ideal in this course.*
- *More open-ended questions should be forwarded instead of multiple choice questions, and practising should always be preferred whenever it is possible.*
- *We forget the things we write on the exam papers after a time, sometimes even shortly after the examination has finished; but we always remember the things that we do by applying.*
- *Your method is ideal in this course; useful and helpful. If you asked us only to read the course book and notes and asked these in the exam, most of us would just memorise the info and might be unsuccessful.*
- *Whatever grading system is used, students should not be exposed to negative feelings such as failing or being unsuccessful. Exams, if they have to be used, should not be the only and certain way of evaluating students' success.*
- *Having students practising and demonstrating their knowledge and skills should always be preferred.*
- *Testing students more often for less cost, without adding workload for*

teachers is good; but it does not help students at all.
- *Exams must be over a period of time not in an hour.*
- *Testing is valid but it kills creativity.*
- *Our course was very good, but it can be applied only in task-based classes such as ETMD.*
- *I do not agree with the old ways. Neither classical tests nor teacher centred explanation types would work for the students of the future.*
- *Teaching must be more meaningful, adopted from and adapted to real life and the same should be done for assessment.*
- *Absolutely there should be evaluation but it shouldn't be as in the system of our country. Students shouldn't study for high grades; students should study for themselves and for their own future.*
- *Evaluations should focus on the practical skills of the students that they can use in real life. Other theoretical aspects should not be assessed in the exams.*
- *Grade-free and test-free modification would be a serious upgrade in evaluation of learning.*
- *If there is no exam, students feel stress-free and relaxed; no pressure or threat.*
- *Some exams really are nonsense.*
- *Testing/grading should be at the beginning, in the middle and at the end; not only at the end.*
- *Evaluation/assessment shouldn't lead to or trigger memorisation.*
- *If it is possible, it should happen face to face all the time.*
- *I think there should not be any exams at schools. To pass the classes there should be tasks every week.*
- *Instead of having mid-term and final exams, there should be weekly tasks or tests so mid-terms and finals can be the total of those tasks.*
- *Evaluation should be during the courses and exams should be face to face.*

These views of the participants should tell us a lot about their psychological condition when it is a question of being evaluated, as an inseparable and unavoidable part of their education. It was observed that almost all students believe that exams and tests are too theory guided, and serve mostly the teachers and authorities rather than learners. What is more, it seems that the evaluation and grading system in Turkey today adopts mostly summative assessment procedures, which disturbs the students. Moreover, it is almost certain that all students are negatively affected by exams, which decreases their motivation, creativity, and happiness because of anxiety and stress. It was also remarked that the current system of assessment and evaluation (summative evaluation that depends mostly on tests) lead to memorisation, studying for grades, and short-term learning. The students also showed clear indications that they like task-based formative evaluation procedures, which also emphasise practice over theory.

4.2.3. The interview and diary notes

The interview and diary notes that the researcher has recorded during the study provide valuable and serious qualitative data, especially in the evaluation of flow, and other subjective assessments that might occur implicitly, in every condition wherever and whenever education occurs. In the following the researcher will present some fascinating sequences from the big picture of the ETMD course that he carried out with the participants. Each week of the study, that is, from the beginning of the ETMD course in the spring semester to the end of the semester, the researcher recorded the stunning or attention catching, and interesting anecdotes, events, dialogues, etc. both during the interviews and class hours. This comprised a period of 14 weeks. It should be noted that always different students were interviewed each week. The interview and diary notes of the researcher are presented week by week in the following:

4.2.3.1. Week 1 Interview and diary notes

Week 1 was introductory in nature, so that all students that subscribed for the course met the researcher as their instructor for the first time, and the computer laboratory as the classroom environment. After the introduction part, the researcher talked with the students (individually, in pairs, or in groups) in relation to their feelings during the activities. Additionally, the researcher interviewed randomly three students after the lesson. The researcher asked if they were comfortable with the computers they used in the classroom and the place where they sat; whether they were used to activities such as the assigned tasks of the week; how often, when, and for what purposes they used the Internet and computers; and about their expectations from the course.

Recorded notes: All students were positive and smiling, except a few who seemed anxious about being in a condition that they were not used to. Although most of the students were hopeful and curious about the rest of the course, the mentioned students seemed worried somehow. Nevertheless, they also declared that they were very familiar with technology and all activities and tasks, and that there was not any problem or reason for failure so far.

Interview notes: The following statements were recorded during the interview.

Student 1: *Today was very enjoyable. The tasks were very easy. I hope the following weeks will remain like this.*

Student 2: *Although I didn't understand how the course would be without exams, I liked the idea; I feel very relaxed. Your attitude is very positive and friendly.*

Student 3: *I think the course will contribute a lot to our professional development. I feel excited that I will learn new things.*

4.2.3.2. Week 2 Interview and diary notes

At week 2, while walking around in the classroom the researcher asked students if they had taken or prepared online tests before. The researcher also asked them if they liked having computers and Internet connection during the classes. In addition, two randomly approached students were interviewed.

Recorded notes: All students indicated that they had taken online tests before, and they actually seemed curious and would like to learn how to do this themselves. Most of the students mentioned that they would prefer to take the exams on computers rather than in the traditional pen and paper way. All students seemed quite familiar with the navigation techniques in the web. Some participants even said that they could not do without the Internet. It was mentioned that the Internet connection and computers matched the content of the ETMD course, but that in other courses they might distract them from following the lessons, because they would be tempted to look at the screens of the computers all the time. It was mentioned that it would be very hard to look somewhere else when there is a computer monitor or a TV turned on in a room. These notes imply that not only are the learners fond of technology but also that some products of technology such as monitors, Internet, and digital devices have already very strongly affected their lives. It seems that these products guide their psychologies so that they feel somehow bound and addicted to these, and cannot keep away for a long time, even if they try. A student even accentuated that not using the Internet and computers or mobile phones was just like desperately trying to give up smoking.

Interview notes: The following statements were recorded during the interview.

Student 1: *I cannot live without my mobile phone or Internet connection. Although I can do without computers, I like using them and spending time on computers. My life would be*

absolute nonsense and extremely dull without technology. Besides using it for my lessons and education, I play games and interact with friends from all over the world, do shopping, follow my favourite programmes, do some banking operations, etc.; a chance and opportunity that my grandparents have never had.

Student 2: *It was really great for me to look up some unknown words online during the lesson, and to see some different examples of what we talked about, that is, online tests and quizzes. I took advantage of the computer and Internet connection that was in front of me. I just wished to have one at my own disposal, and not to have to share with my friend, so I could use it more freely. Also, it would be better if the classroom environment was more spacious; this classroom is too crowded with twenty computers and forty students, who sit too close to one another.*

4.2.3.3. Week 3 Interview and diary notes

Week 3 enabled students to use MS Office and Open Office to prepare simple but interesting materials and tests that included visual, audio, and video files. The students learned how to insert bridges and links in their documents and how to connect these with the web. While walking around in the classroom the researcher asked students if the activities were hard for them; if they would benefit from these when they graduate or anytime in their lives. The researcher also asked them if there was any problem in working in pairs with their partners in the class. In addition, two randomly approached students were interviewed.

Recorded notes: I clearly noticed that very interestingly the classroom became more silent than ever during the activities in the first ten or fifteen minutes, which was followed by rich interaction and communication among the students. They were smiling and showing off to one another when they finished a job or when they did something interesting. The students were always free to hold up their hands for help and the instructor approached soon, but sometimes students helped one another, too. The classroom became like a brainstorming area where serious tasks were carried out but in an entertaining and relaxed mood. In the end of the classes each pair had some finished work to show or e-mail to the instructor. During the activities, I noticed that in some pairs the computers were controlled mostly by one of the students, but the other students were also active in guiding,

giving ideas, or helping whenever needed. Therefore, I can speculate that each individual was actively involved in the process either mentally or physically, or both.

Interview notes: The following statements were recorded during the interview.

Student 1: *I didn't know that we could do such things with the help of Office programmes. It seems that creating digital materials for the web is not as hard as it seems. I am impatient for the exercises and activities in the following weeks of our course. I haven't noticed how the lesson passed; it was just like a leisure time or activity club for me.*

Student 2: *Now I better understand how websites are created and the way they work, but I feel much excited since I have noticed that in the future I can prepare my own website that will be full of educational materials for my students. I felt very comfortable to be able to freely ask questions to my classmates during the lesson, and not to have to keep silent all the time. I enjoyed being social and active to be honest. I also felt motivated to improve myself more when I saw that some friends were really ahead of me in relation to their technical and aesthetical abilities.*

4.2.3.4. Week 4 Interview and diary notes

At Week 4 the students seemed as if they maintained their pleasure and motivation from week 3, and were ready to learn new things and to practise these with the help of their computers. While walking around in the classroom the researcher asked students if they had taken or prepared online questionnaires or surveys before. The researcher also asked them if it would be useful for them to learn how to do these, for instance, to do needs analyses with their students, or to collect the opinions of their friends through Facebook, Twitter, etc. In addition, two randomly approached students were interviewed.

Recorded notes: The students looked amused by the questions they asked and the responses of their friends. They were also surprised when they saw that they could put and publish their questionnaires on the web, and that the responses were saved in their Gmail accounts. The lesson was continuing to be like a workshop for the students in which they concentrated on the work they did rather than on the instructor. What is more, at the end of the lesson they learned something interesting, new, entertaining, etc. that they could associate with their needs or interests in due course. All students were perfectly settled with the activities, classroom environment, and the approach and style of the instructor.

Interview notes: The following statements were recorded during the interview.

Student 1: *I am very happy that I have learnt how to prepare and apply online surveys. I am planning to publish a new questionnaire in my Facebook account each week, and collect the views of my friends. I think I can do this for my students when I become a teacher. I believe that we can prepare quizzes as well with the help of GDs.*

Student 2: *The lessons are not only not boring but also very useful and enjoyable. The activities are in line with our skills and abilities when you provide us with the necessary guidance, instruction, and examples. I am very pleased that we have plenty of chances for practice and are equipped with computers and Internet during the classes. I like coming to ETMD classes.*

4.2.3.5. Week 5 Interview and diary notes

Week 5 was very busy because of the curriculum of the week. The students were partly familiar with and partly unused to the content. While walking around in the classroom the researcher asked students if they had used some of the software that was introduced to them, and if so, what they thought about these. The researcher also asked them if they had any ideas about how to use or integrate these for FL learning and/or teaching. In addition, two randomly approached students were interviewed.

Recorded notes: Most of the participants had already used some platforms and software that enabled synchronous and/or asynchronous communication, but they hadn't done this with a specific purpose to deliver or receive educational content. Although the computer laboratory was lacking web cameras, and thus, we did not have the chance to practise visual conferencing, the participants were quite familiar with visual communication applications. During the lesson, they became very interested in creating and setting their online weblogs. Likewise, the participants seemed as if they very much liked the HotPotatoes software, and were captivated by the outputs of the programme. They very often expressed that it would be a very useful acquisition for them. It was a positive addition to see that the materials they could create and develop could be published online, for instance in their weblogs. Therefore, the curriculum, contents, and acquisitions of the course followed a progressive and complementary order that was certified and approved by the learners. This was essential and important because all content and every

procedure should charm the learners in order to raise and maintain their motivation, which seemed to have been succeeded so far. Although the instructor did not take attendance signatures for the classes, the students joined the lessons regularly each week, except for a few students who experienced some external and urgent situations.

Interview notes: The following statements were recorded during the interview.

Student 1: *HotPotatoes is going to be my biggest assistant while preparing additional exercises and tests for my students. It is great to know that I can extend my educational practices online. I didn't know that setting a weblog or a website, and publishing digital contents was that easy. The instructions in your weblog help a lot, too. I feel much more computer and technology literate now.*

Student 2: *During the lessons I was so much busy with the activities that I didn't recognise how the classes ended. I feel so pleased and motivated during the practice when I see the end products and recognise how useful they will be when I become a teacher. Moreover, although I was very tired today, I haven't been distracted at all since there was a new challenge that cultivated new results and products all the time. Additionally, I am very conscious about why I am learning these things, and when and how I can use them.*

4.2.3.6. Week 6 Interview and diary notes

Week 6 provided quite technical and challenging curriculum contents for the students. While walking around in the classroom the researcher asked students if they had developed and activated a website before. The researcher also asked them if they had any experience with MOODLE, and whether they had installed a version of the software on their own or not. In addition, four students who were either randomly approached or who approached the instructor themselves were interviewed.

Recorded notes: I had to repeat most steps again and again, and to do everything extra slowly for the students to understand, take their notes, and keep up with the lesson stream. There was a lot of demand for individual help, which at times was very tiring and hard to keep up with. The applications and activities seemed to be new to almost all students. Week 6 was the most challenging and tiring week of all, which at times distracted some students from concentrating on the tasks and procedure. Female students seemed to be affected more by the difficulty level of the activities. We also had some Internet

connection problems that slowed up and complicated the lesson. Therefore, I decided to prepare simple video files, and to publish these online, so that the students could access them wherever and whenever they could and practise the things we tried to do in the classroom. I recorded these videos in Turkish and uploaded them on YouTube, and published their links in my weblog. I would speculate that the difficulty of the week challenged the participants, and thus, some students were discouraged during the lesson, but they were intrinsically willing to learn new things that would be useful for them or popular in the future. Therefore, it seemed that they were still motivated and hopeful to pass this obstacle.

Interview notes: The following statements were recorded during the interview.

Student 1: *This week was very challenging. Sometimes I felt so overloaded and helpless. I can say that I needed more personal instruction and more practice on each step of the procedures. Some of our friends used to help us whenever we needed it in the previous weeks, but this week they were struggling, too.*

Student 2: *I think we need a personal computer for these tasks since sharing the PC with our friend limits us at times when we would like to proceed or go back, etc. We also need faster Internet connection so that we will not have to wait too long before passing to other screens. In the lesson the computers of some friends worked faster than others, and it was not possible to proceed concurrently. Sometimes you proceeded according to the slow groups and sometimes according to the fast groups, which distracted the backward or forward groups.*

Student 3: *Setting our own websites and installing MOODLE in these is a good opportunity to improve our digital experiences. I believe that distance or online education will spread all over the world in the future, so this course will help us to adapt and integrate ourselves in the trends of the future. Notwithstanding the use of the subjects of the course, I feel that we need more practice to internalise and automate all features and facilities of the software and programmes. Especially MOODLE and HotPotatoes caught my attention and interest, about which I would like to learn better and improve my abilities.*

Student 4: *I am very happy that we are educated about MOODLE. Some of our instructors already use it for their courses, and I would like to use it for my courses in the future. The ETMD course is a real opportunity for me I think; I am satisfied with most of the subjects*

of the course so far. Although we have had some technical problems connected to the physical conditions, this week was very fruitful.

4.2.3.7. Week 7 Interview and diary notes

Week 7 enabled participants to further their practices with MOODLE with the assistance and guidance of the instructor. The researcher noticed that all students had successfully completed the assigned tasks for the week and the marks were awarded. Thanks to the videos that were recorded to help students after week 6, all students were ready and looked much more optimistic this week. During the lesson the researcher asked students about their individual and autonomous experiences with MOODLE that was assisted by the videos prepared by the instructor. The researcher also asked them how they felt and thought the previous week and if there was any difference now. In addition, two randomly approached students were interviewed.

Recorded notes: Each student had his/her own website and MOODLE set, and they had the opportunity to customise the settings and change the appearance of their sites during the lesson, which was done one after another with each person in the pair that shared a computer. Therefore, students went over the same procedures at least twice, which meant enough practice. Most students also completed the newly assigned tasks in the classroom, and earned their marks, which pleased and motivated them. Week 7 was very fruitful in that everything was put in the usual order, and the atmosphere was completely positive again. The students were able to help one another, and the instructor was able to reach everyone who needed private instruction and/or help.

Interview notes: The following statements were recorded during the interview.

Student 1: *It is so great! I not only got very comfortable with MOODLE and my website, but also received 20 marks in total, which is perfect. I succeeded in completing the tasks easily within the class hours. It seems that just attending classes regularly, or following the tasks strictly will be enough to pass the class and learn new and useful things, without any pressure, stress, or anxiety.*

Student 2: *Last week was ambiguous, but now everything is clear and in order. The videos that you prepared were great. Almost everyone can do the tasks with the help of those videos. I spent about two hours in front of my computer at home, and it was a very*

satisfying experience to have been successful in completing the hard tasks of the week. I feel much more self-confident related to technology and computing since the beginning of the semester.

4.2.3.8. Week 8 Interview and diary notes

At week 8, while walking around in the classroom the researcher asked students if they believed that vocabulary is very essential in FL education. The researcher also asked them if they had prepared any vocabulary exercises or tests before. The researcher asked if they would be interested in designing and developing online vocabulary materials as well. In addition, two randomly approached students were interviewed.

Recorded notes: It seemed that preparing vocabulary exercises and tests was quite an easy activity for the participants as they had already had practice with MS Word, PowerPoint, etc. for preparation of quizzes and tests in week 3, and with HotPotatoes in week 5. The participants were told that the materials they were going to prepare throughout the semester would be conducted at a website and/or published in a book, so that students in elementary schools could benefit from these. The researcher indicated that their names would be written next to the materials they were going to create, which seemed to have additionally motivated the participants. They took to the classroom activity as if they were doing something very serious and useful, which was actually true. All students agreed that preparing FL vocabulary materials would be a useful activity.

Interview notes: The following statements were recorded during the interview.

Student 1: *Vocabulary is one of the most important things in FL education. I have never before prepared FL materials officially. Knowing that the things we are doing in classes will help other people is really motivating for me; I already feel like a teacher, although I am only in my second year at university.*

Student 2: *I tried to do my best and searched the Internet hard to find the best and most appropriate examples or materials in order to create the exercises and tests that I would be proud of; otherwise I would be ashamed at seeing my name next to these. I believe that the materials I created will contribute a great deal to the skills and knowledge of young learners of English.*

4.2.3.9. Week 9 Interview and diary notes

Week 9 proceeded in the same nature and tone as week 8, except that this week students created materials that focused on grammar. While walking around in the classroom the researcher asked students if they believed that grammar is very essential in FL education. The researcher also asked them if they had prepared any grammar exercises or tests before. The researcher asked if they would be interested in designing and developing online grammar materials as well. In addition, two randomly approached students were interviewed.

Recorded notes: The students looked very comfortable and relaxed. There was almost no need or request for guidance and help; the participants worked autonomously. They seemed as if they knew what they were doing. Some students spent time with their e-mail, Facebook, or other accounts during the lessons. However, they turned back to their work or carried out both synchronously. The researcher did not force them to concentrate only on the activities or pressure them not to surf unrelated websites, since Facebook, weblogs, etc. were all within the scope of the course, as in week 4 when they had to prepare online questionnaires and publish these online. The participants seemed satisfied as they were not only entertained but also did serious work. The researcher could clearly observe the feeling of relief on the face of each student.

Interview notes: The following statements were recorded during the interview.

Student 1: *It was enjoyable and easy to search the Internet and find appropriate examples and to edit or modify these. I already have a database of vocabulary and grammar questions that I can use during my teaching practice in the last year of school, and when I graduate. I will continue to expand my database after school as well. I wish we didn't have to share the computer in the classroom, so I could create more and richer materials.*

Student 2: *The activities and tasks that we do in the classroom both teach us new things and improve our linguistic and computing skills. I very much like the fact that our course is practice based. I would be very bored if I had to read long academic texts and learned only theoretical things that I could not be sure of using at all in my lifetime.*

4.2.3.10. Week 10 Interview and diary notes

Week 10 proceeded in the same nature and tone as weeks 8 and 9, except that this week students created materials that focused on reading. While walking around in the classroom the researcher asked students if they believed that reading is essential in FL education. The researcher also asked them if they had prepared any reading exercises or tests before. The researcher asked if they would be interested in designing and developing online reading materials as well. In addition, two randomly approached students were interviewed.

Recorded notes: Thirteen students were missing in the classes for a variety of reasons. However, all participants completed the in-classroom tasks and other formal tasks of the week. This indicates that although the attendance at school might be lacking at times, the educational activities can continue if the tasks and instructions are clearly defined, and when the students are autonomous enough to follow the curriculum online and to work independently. When I controlled the work of the students that were sent by e-mail, I noticed that there was no change in the quality or quantity of the materials created. Some students exceeded the deadline for completing and sending the tasks of the week though. Nevertheless, all students and even those who did not bother to do the activities of the week were in close contact with the instructor both physically and online, and explained themselves or talked to the instructor every once in a while. If I viewed the matter of absence from the modernist aspect, I would worry that the classes had slackened and that the control was lost, but on the contrary, from the postmodern perspective the situation should be seen as a promising one because it indicates that autonomy feeling and attitudes were improving.

Interview notes: The following statements were recorded during the interview.

Student 1: *This week was similar to the previous two weeks, except the reading subject that was a bit more complicated. It took time to find interesting and graded passages of appropriate length that could catch the attention of elementary learners. Otherwise, I was extra comfortable because my friend couldn't join the lesson, and the computer was only at my disposal. I think it is good that we prepare FL materials of different types that concentrate on different skills each week, because I might get bored otherwise by doing same things every week.*

Student 2: *I feel motivated when I am doing things that will be useful for me, and in the way I like doing these things. The course allows us the flexibility to complete the tasks and activities with the materials and methods of our own choice, which is very important. The only problem is that we have problems with the computer and Internet connection sometimes, and that two persons have to use one PC.*

4.2.3.11. Week 11 Interview and diary notes

Week 11 progressed in the same nature and tone as weeks 8, 9, and 10 except that this week students created materials that focused on listening. While walking around in the classroom the researcher asked students if they believed that listening is essential in FL education. The researcher also asked them if they had prepared any listening exercises or tests before. The researcher asked if they would be interested in designing and developing online listening materials as well. In addition, two randomly approached students were interviewed.

Recorded notes: Some students were handicapped due to loss of Internet connection, and/or virus attacks, which required restarting the computer and installing some necessary programmes all over again. Some students lost a lot of time by trying to download some audio files, which could have been solved by just embedding or giving the web link of the files. Some participants experienced problems in playing the downloaded files due to file format and player incompatibilities, which distracted and tired them. Technical problems hit the headlines this week.

Interview notes: The following statements were recorded during the interview.

Student 1: *I had never expected that preparing listening materials would be so arduous. It would be very handy if you could provide us with some ready-to-use audio and video files, so that we could concentrate only on writing the exercises or questions. Downloading files in this lab takes ages.*

Student 2: *It would be great if we could receive marks from the classroom activities and tasks as well, which would also encourage attendance to classes and increase our motivation. Nonetheless, I think forgetting about exams and working in a pressure free environment is very inspiring and comfortable. I believe that the listening skill is important in FL education, because we cannot communicate if we can't understand what we hear.*

Therefore, the materials that we create here will be very useful for learners in improving their listening.

4.2.3.12. Week 12 Interview and diary notes

Week 12 progressed in the same nature and tone as weeks 8, 9, 10, and 11 except that this week students created materials that focused on writing. While walking around in the classroom the researcher asked students if they believed that writing is essential in FL education. The researcher also asked them if they had prepared any writing exercises or tests before. The researcher asked if they would be interested in designing and developing online writing materials as well. In addition, two randomly approached students were interviewed.

Recorded notes: The students seemed to need serious instruction and guidance to prepare materials on writing. The students had difficulty with this topic not because it was hard but because they had not had many writing activities throughout their education. This justifies the fact that the educational system in Turkey is mostly receptive based and supports the improvement of grammar and other receptive skills. Moreover, the assessment policies mostly rely on multiple-choice tests and encourage short answers or matching, etc. which reduces free brainstorming and creativity. Therefore, the autonomy in the classroom was lower compared to the other weeks.

Interview notes: The following statements were recorded during the interview.

Student 1: *I just didn't know what type of writing activities and exercises to prepare but otherwise the task of the week was not different than other tasks. I was used to grammar and vocabulary items most of all, and some reading exercises; but writing and speaking materials have been what I have very rarely met throughout my educational life. Therefore, my mind was not very creative this week. I prepared some activities but these were what I copied from some classmates, or I followed your guidance. Actually, I think that writing exercises can improve FL competencies of the learners, but they are not so essential. They can learn a FL without writing, just as in the way we have learnt English.*

Student 2: *I didn't know that writing notes or short summaries on weblogs, chatting online with friends, or sending e-mails to people would count as FL writing exercises and activities. These things would be very enjoyable indeed. However, I was used to giving*

some topics to students and asking them to write compositions, or to prepare passages related to their families, holidays, favourite programs or celebrities, etc. To be honest, I now realise better that writing activities can be so useful for FL learners, and can improve their productive skills.

4.2.3.13. Week 13 Interview and diary notes

Week 13 was allocated for presentation of the individual tasks that had been created during the semester. These would create some further brainstorming and discussions among the students that might improve their critical skills as well, as much as their creative skills. Nevertheless, as it was almost the end of the semester, it was really hard to bring everyone together.

Recorded notes: There were just a few students in the classroom. Most of the participants had already left school, or were hanging around in the city before heading towards their home cities, since all tasks and exams had finished during week 12. I noticed that the students did not enjoy or were not very enthusiastic about conference-like classes. Additionally, it became obvious that doing activities in the last weeks of school would be hard as students lose their motivation. The students who came to the classes were interviewed about their general thoughts and feelings, and evaluations of the ETMD course.

Interview notes: The following statements were recorded during the interview.

Student 1: *I believe that we have had a very beneficial and creative course this semester. On my behalf I can easily say that I have learnt a lot of new things that I will use throughout my life, and the interaction and the atmosphere during the classes was very comfortable and positive.*

Student 2: *If we don't have the chance to design and activate the conjoint website of our course, I will create and publish my own website or weblog, and upload all the documents and materials that have been accumulated. I will improve this continuously, so that someday I might have a huge and very popular place on the web.*

Student 3: *For me, the ETMD course was a very new experience that not only contributed to my intellectual and professional skills, but was also incorporated into my opinions and beliefs by broadening my philosophy of education and expanding my experiences to*

different environments and dimensions. I felt so motivated during some weeks that I even forgot about some of my personal problems. It was also fantastic that I have taken 100 by accomplishing all the assigned tasks on time, which was an absolutely stress and anxiety free experience for me.

4.2.3.14. Week 14 Interview and diary notes

Week 14 was planned to combine all materials and documents of the tasks of the students in a website, which would be activated online. The materials that would be put online would have been pre-eliminated and revised at week 13, but this was impossible to do due to major absence of the participants.

Recorded notes: The classroom was completely empty this week. So, I went back to my office and sat there till the end of the class hours. During that time two students dropped in to ask if we would have classes, but seemed unwilling to go to the computer laboratory classroom. I announced that I would meet them in the next semester, and wished them a happy holiday. Before letting them go, we had a nice informal chat and drank coffee. Some attention catching points of the students are reported below.

Interview notes: The following statements were recorded during the chat.

Student 1: *It could be discussed that the quality of the work done by the participants was not the same, and thus, it wasn't fair to award all marks of the assigned tasks to everyone. However, the current assessment system is not very objective, either. I don't believe in the grading system. One of my friends got 85 and I got 80; what is the difference between us? Does my friend know exactly 5 marks' worth more than me or is s/he 5 marks more skilled than me, and not 7 marks, for example? It is an obligation for teachers to eliminate the students in such ways (test, quizzes etc.)? So, exams and tests are a good way to eliminate students; but not the best way to gain them. The evaluation approach of this course was an embracing one, encouraging, praising, and motivating; while the general evaluation approach is an eliminating one, and depends largely on exam and test results.*

Student 2: *I agree with my friend about the grading system, but I think that it is obligatory for the formal procedures and documents. What occupied my mind on this course during the semester was that digital learning environments are really very rich and flexible. I have noticed that we have numerous opportunities to expand education and to make it*

more enjoyable. However, I have also thought that not all of our instructors and lecturers have the necessary knowledge or skills to apply the same approach in their courses as well. I can even postulate that I can be their teacher when the matter is technology and surviving in the digital world.

Student 1: *Personally, I feel very confident that I have improved my self-management skills. Besides the acquisitions that were mentioned in the curriculum, I have acquired the habit of being more individual and autonomous. It was a wonderful opportunity to be able to follow the content and tasks of the week from the weblog, because some weeks I was not able to join the classes, but didn't want to drop the course.*

Student 2: *My self-confidence has improved, and I also seek for ways to be more creative and critical now, because during the course we have had enough criticism and feedback about some tasks that were duplicated or just ready copied. Additionally, it was very relaxing that we were encouraged to do our best, but were not put into a situation of rivalry.*

Student 1: *The biggest handicaps of the classes were related to technological and physical limitations. It was sometimes very annoying when the Internet connection dropped or was too slow. Additionally, I had to install some software each week when I turned on the computer because the previously installed ones were deleted automatically.*

Student 2: *The classroom was too small I think, and it was unfortunate that I had to share the computer. Also, it was good that we used Gmail because it enabled problem free backup and transfer of files. The tasks and activities were in balance with my interests and capabilities, although very challenging at times.*

4.2.4. Overall Interpretation and Discussion of the Qualitative Results

Having presented the full report of the qualitative data that were conducted through the questionnaires, interviews, and diary notes, the following notes could be underlined in relation to the Research Questions 3, 4, and 5, and related hypotheses. The conclusions derived from the qualitative results are as follows:

4. Is there any positive attitude towards exam-free formative evaluation that will depend on the assessment of weekly tasks? There is serious evidence that exam-free and weekly task-based formative evaluation has extremely positive effects and contributions to the mental and emotional states of the students. Furthermore, it was observed and determined that weekly task-based assessment teaches some habits that contribute to the development of the character besides the professional competencies, which is one of the most important additions to education that should not be neglected. People should be trained as teachers, doctors, engineers, or whatever; but they should be educated as good and high-quality persons, first of all. Moreover, exam-free evaluation creates an environment that enhances closer connections between the teacher and students, which improves the quantity and quality of the feedback received by the learners through weekly transmission. See further Table 4.17. and interview and diary notes at weeks 1, 7, 11, and 14.

5. Does the use of technology and online and autonomous principles positively affect the motivation of the students? There is very strong evidence that technology enhanced, online, and autonomous education is the exact expectation and need of digital native learners. Although the present study presented a blended course delivery system, it was observed that the motivation and flow was higher when the students were allowed flexibility and comfort, which should be assisted by a well-structured curriculum, activities and tasks, and procedures to keep both the students and the goals of the course in track. It was noticed that some learners might experience difficulties, which would be mostly due to technical and physical conditions rather than personal disadvantages or incapability. See further Tables 4.18., 4.20., 4.22., and 4.23., and interview and diary notes at weeks 2, 4, 5, 7, 9, 10, 11, 13, and 14.

6. Do the opinions and beliefs of the participants related to the importance of specific topics, contents, and elements in FL education, affect the flow state during the activities? The observations of the researcher suggest that motivation, and thus, the flow experience is strongly felt when students deal with topics that they believe are important and/or useful. It was noticed that during the activities and tasks that were, for instance, on vocabulary, and reading and listening, students seemed to work with consistent pleasure and concern for perfection; while with the writing topic, they seemed to be less amused and captured by the activities, partly because they did not have a clear idea what to do and

partly because they believed that writing was not among the most suitable skills for a FL learner to practise and improve by the use of technology (see Tables 4.11. and 4.13.).

4.3. Summative Report of the Results

It would be a correct statement to report that the ETMD course prepared and carried out by the researcher met the expectations, needs, and interests of the students both in substance and procedure. Although the philosophical stance or consciousness of the participants was not at a very advanced level, their opinions about the ideal education and grading system revealed that the participants contained motives and tendencies which were in accordance with the new trends of the digital age and postmodern understandings. Personally, the instructor was satisfied with the content and procedures he was able to provide within the scope of the course, and that was confirmed by the students as they showed clear indications of appreciation throughout the semester, and in the following semester even though they were not obliged to cooperate. In sum, the conclusions derived from the quantitative and qualitative data of the present study are as follows:

* The students acquired more vocabulary in neither of the methods, but they retained more vocabulary in the LtPE method, which was significantly evident in all three cases (i.e. productive, receptive, total items).

* The exam-free task-based formative assessment was praised highly by the students, also making very positive contributions towards decrease of anxiety and stress. This type of evaluation system created positive additions to the participants' self-management skills and attitudes towards learning and participation in the classes.

* The use of technology and principles of autonomous learning positively affected the motivation of the participants. It was determined that blended education would better suit the expectations of the learners as there was a tendency towards distance and online education but also a need for immediate assistance of classmates and guidance of the instructor.

* The opinions and beliefs of the participants related to the importance of specific topics, contents, and elements in FL education, affect the flow state during the activities. Students were observed to work more willingly with topics that they like and succeed in, which maintained their pleasure for a longer time.

4.4. Further Discussion

There is a need to discuss that if education and training is going to undergo a shift from traditional to postmodern, there is an absolute need to reconsider the evaluation and assessment techniques, instruments, and procedures. The approach that was employed in the current study might be criticised for not being objective or egalitarian as it awarded the marks determined for the tasks, regardless of the quality of the work as long as the work was complete and done on time.

This argument should be considered seriously, not because the current approach is invalid but because it can be improved and refined. It should be stressed once again that exam-free evaluation makes very positive contributions to the overall mood and personality qualities of the students. Evaluation, particularly in Turkey, depends so heavily on assessing knowledge through examinations and multiple choice tests most of the time, which distracts long-term focus and concentrates on short periods that are defined by shallow scores recorded as the result of longitudinal education. What is more, the examinations and tests usually focus on how much certain information is memorised before the exams rather than testing the skills and abilities of the students in practical situations. Moreover, these tests and examinations contain only a small fraction of the total field of study or curriculum each time, which by nature neglects spiral or circular acquisitions, and their integration and use. Additionally, although it might be possible to postulate that multiple choice tests and similar exam items produce objective scores and results, there would still be room for argument that even these too fail to evaluate people very truly. The following anecdote should be useful in clarifying the point.

Anecdote: Personally, throughout my educational career I have received only two low marks, one of which was in the Computing lesson while I was a student at university, and the other was in the Distance Education lesson during my PhD education. In the Computing lesson I was asked to name the titles of some menus in MS Word or the components and hardware of the computer that I had not bothered to memorise, but was proficiently self-confident in being able to use extensively. In the Distance Education lesson I was prompted to translate some original texts about distance education from English to Turkish, which resulted in a score that I really doubted to assess my skills and abilities objectively because I could design and develop websites and weblogs; I could

create and use digital materials; I had my own Moodle site that I used actively; I have read and written a serious number of CALL and ICT papers and books related to distance education, and so forth. Therefore, in both cases, although the question types and/or the philosophies and approaches of the instructors related to evaluation and assessment might not be criticised, for me personally, their styles were far from being objective not because their points of view were insensible but because they didn't match with my perspectives. I believed in the practical abilities that would be enhanced by theoretical knowledge, but my instructors, in my opinion, believed in the organisation and definition of theoretical knowledge.

To this end, it would be possible to comment that the nature of the question types, and the perspectives of the evaluators and evaluated affect the ultimate results in assessment.

Nevertheless, the present study has shown that when carefully and appropriately matched with the expectations and perspectives of the learners, formative evaluation cultivates useful results that provide a bigger picture related to the success and/or failure conditions of the learners. Moreover, the present evaluation system depends on rewarding the efforts of the students which leads to confident learners who need and desire to be evaluated rather than looking for ways to avoid the evaluation and assessment procedures, which is the case in traditional educational settings. Additionally, since learners were not asked to respond to the evaluation criteria in the same fixed way, that is, because each participant was allowed to complete his/her responsibilities from his/her own stance, there was no reason for cheating or avoiding the practices of the classes. The present system also virtually created a feeling that the course was set for the students to learn some new and useful things rather than to pass it. The exam-free task-based system evoked an understanding that in education the important thing is not the results but the processes, which should be embraced and claimed by the learner first of all. This could be also a response to the question (*How could it be ensured that all students treat or take the tasks seriously and responsibly?*) stated in Chapter 3. If and when education becomes 'opportunity for learning' without anxiety related to being measured or assessed, it becomes a voluntary activity such as learning to play an instrument, attending evening classes of painting, taking private FL lessons, etc. Moreover, the sobriety or devoutness of an individual is as unique, incomparable, and diverse as the soul or richness of one's world

that deliberate efforts in pushing everyone in the same line of commitment would be nothing but an oppressive and reductionist attitude, which will certainly contradict harshly with the humanistic and postmodernist views of education.

CHAPTER 5

Pedagogical Implications and Suggestions for Further Research

The FL vocabulary learning/teaching model offered in the present study has implications not only for the FL education field but for all areas of education. The LdL model of Jean-Pol Martin has been adapted successfully to vocabulary-related CALL activities, and more specifically to learning and practising of unknown academic vocabulary from the AWL of Averil Coxhead. Self-regulated or self-directed learning seems to expand students' interest in and attendance to the classes as well as to improve learners' autonomy and responsibility for taking control and managing their own educational processes. However, educators should be cautious about adopting the roles and attitudes of an instructor (i.e. facilitator) rather than a teacher (i.e. authority). This can be easily ensured with extra empathy and by putting ourselves in the shoes of the learners. Sometimes it is also helpful to ignore ourselves and think of others with priority, and to be more concerned with the humane features of individuals, that is, their psychologies. It should be accepted and internalised, first of all, that there is no 'teaching' but 'learning', and that there is no 'my student' but just 'my learner' if it has to be said. 'Teacher' and 'student' are concepts of the positivistic authoritative philosophies that necessitate scholasticism and the implementation of top-down approaches rather than bottom-up ones. Having this mind set (i.e. having made our philosophy clear in our minds), adopting a humanistic and postmodern approach will become easier without any doubt. However, this should be also allowed by the upper level authorities and the system itself for sure. Otherwise, without internalising this culture of humanism and postmodernism, deliberate efforts cannot go farther than just research experiments.

There is need for further research to reveal the theoretical and practical underpinnings associated with such learning approaches, but depending on the observations made during this study it can be confidently suggested that the LdL-based activities contribute positively to learners both cognitively and affectively, particularly at university level. Therefore, while conducting classes at higher education level, instructors should be aware of the useful resources and materials such as the AWL, websites or weblogs, software, etc. that would contribute to the content and practice of the lessons as well as to the interests, habits, and needs of their learners; and they also should possess the

necessary knowledge and skills to assist the learners and to provide them with useful feedback when necessary.

To state it more concretely, first, instructors should conduct needs, interests, and skills analyses prior to deciding about the goals or aims of the course(s), and to organising the content of the lessons and the materials to be used during the classes. Second, they should plan for differentiated instruction and opportunities in order to address MI and HN as well as the principles of cognitive and affective psychology. Instructors should seek for different ways of dealing with the same topics or problems such as allowing learners to involve their skills in the most appropriate tasks or activities from among a large range of options. For instance, if an FL instructor is to introduce, let us say, the AWL to his/her class, s/he should just inform the learners about its characteristics and let them or ask them to search and examine the list themselves; rather than giving them a certain book or text to read and asking them questions or testing them on these texts, which will lead to memorisation of predefined knowledge. Instead, it should be a better way to ask learners to prepare questions about the insights of the list, so that they can ask one another and also check one another's knowledge on the topic. This approach can be applied in the same way for any subject, and would be very beneficial concerning persistent learning. In a short time, the ways or styles of activities can become as diverse and rich as the modern models such as multiple choice, matching, cloze tests, etc. that are related to vocabulary acquisition and measurement. What is implied here is that as the social media is today, education should be modified and implemented in such a way that most content, methods, techniques, and strategies will be learner generated, which will also be globalised by the adoption and adaptation of ICT. The core trends or topics to learn will be dynamic and determined according to the changing habits and tendencies of the new generation. This will necessitate instructors to work and update their knowledge and skills in order to meet the expectations of the learners, which will be a total and bidirectional lifelong learning that will comprise not only the learners but also the instructors. This in return might remove the incompatibilities between the instructors and lecturers as well as the criticisms that education has fallen far behind other fields of study, and has difficulty in keeping up with the innovations.

In places or cases where society's wealth supports learners and instructors to possess the necessary technological equipment and software, adoption and implementation

of futuristic approaches should be easier. However, under the conditions where the economic or cultural characteristics pose obstacles, it would be a more effort- and time-demanding issue, but still possible to suggest that similar applications can be carried out within the institutions if not outside schools. Many institutions today have computer laboratories, and established Internet access, which can be made available to learners and their mobile phones, tablet computers, or laptops (if they have these) everywhere within the campuses and also in other places. The VL/TM examined in the present study revealed that measurement and assessment might be quite a serious problem from both the instructors' and learners' aspect. The researcher would postulate that this is so because the current paradigm of modern positivism urges it. While applying LdL-based activities and technology enhanced instruction like the ones in the current study, it will be necessary to accept and embrace that the essential thing in education is the process rather than the result, and thence, measurement and assessment or the means of these should be seen as means of or opportunities for learning, and thus, arranged, organised, and used accordingly. Therefore, an ideal education might necessitate radical steps and approaches such as removing summative assessment and measurements, and involve more formative evaluation types that will keep learners busy and willing to learn. Tests and exams should not be employed as means to pass or fail a lesson, but as approaches to determine the creativity or critical thinking levels of the learners and means to learn from one another's aspects by letting them prepare and apply these (if really necessary). For, categorising learners or their knowledge according to certain criteria is a fundamentally speculative and provocative matter in nature (recall the epistemological discussions in the philosophical background). For instance, just because a learner has scored 90 and graded A in the 'final exam' and another has scored 50 and graded D, this cannot show the actual or total knowledge levels of these learners nor can it be used as an identifier of other qualities of the individuals as also exemplified in Figure 2.6 related to the educational system. That is why, while practising the role of an instructor, educators should keep all these philosophical and psychological aspects in mind, and focus more on the learner rather than on the subject topics if the aim is to help individuals improve cognitively and emotionally, but not to assist them in dropping classes or skipping school. Depending on all the discussions and findings of the present study, the researcher would offer a new model of education and learning as in the following.

5.1. A New Model of (Lifelong) Learning in the Age of Technology

The current education and learning system is hierarchical, building on the paradigms of the 'grand narratives' and authorities and their principles and ideas as in Figure 5.1. In this model not only the learners but also the instructors are oppressed and limited at certain levels. The general educational policy, which is determined by a specific group, dictates on the educational institutions as well as the knowledge taught and/or produced. Society is formed by these general assumptions and information about reality, which are intensively fed into the educational programs, and also injected to the educators, who impose these on the students, and mediate as organs of the authority to control individuals, and thus, societies.
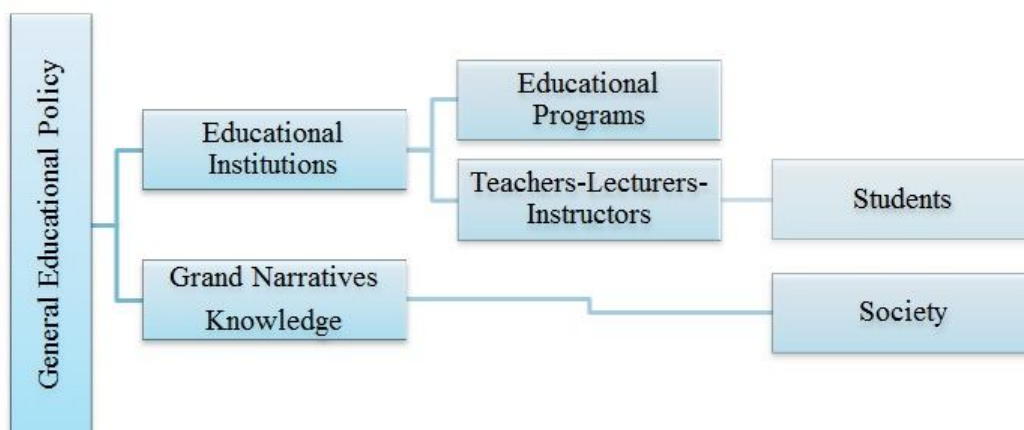
Figure 5.1. The current educational model

Therefore the current classrooms of the modern educational approaches look similar to Figure 5.2. In these classrooms that are usually physical environments, the top and the bottom are always predefined. The students have no other choice but to confront the predefined bodies or environment(s) for the predefined subject(s)/course(s). Moreover, each learner has to adapt to the condition(s) provided, and also to comply with the given information, types and frequencies of assessment, employed methodologies, etc. as a member of the classroom and community; and to be a "good student". Additionally, it is hard to claim that modern educational procedures are humanistic as they treat, assess and classify individuals according to the paradigm in power, which has very linear and strict characteristics of stereotyping people.
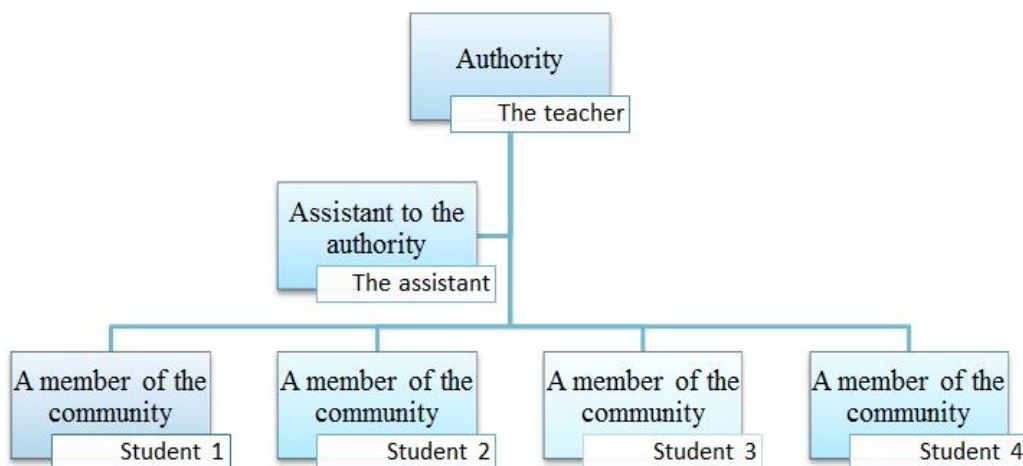
Figure 5.2. The modern classroom

However, the new model of humanistic (lifelong) learning in the age of technology should be circular and install the learner in the heart of everything as in Figure 5.3. The learner should have the opportunity to take responsibility for his/her own education by engaging the authorities, educational programs, resources to follow, and measurement and evaluation in the best way that will suit him/her. For instance, a learner should have the option to create his/her unique educational program so that it will trigger his/her desire to attend classes and to maximise his/her personal satisfaction; and also to demand assessment and evaluation in the most suitable way. Unfortunately, this is absolutely not the case in Turkey, because all universities and departments have to submit to the general regulations of YÖK, and thus, follow fixed curriculums although the syllabuses of these can vary to some degree; and also fixed methods of measurement of learning. A student in the ELT Department at the Faculty of Education, Uludag University, for example, has to take 59 compulsory courses, only 3 of which are elective, within eight semesters in order to obtain a Bachelor's degree diploma. What is more, the students have to take these courses in certain semesters and according to certain time schedules. A student cannot get enrolled, for instance, on the CALL course when s/he is in the first or second year, since the course is installed in the eighth semester, that is, the fourth year, and can be only selected in the second semester of the third year, if s/he would like to attend it earlier than its specified usual time. In addition, commonly students are to take two exams (1 Mid-term and 1 Final) that usually measure learning in a summative way, and vary according to the choice of the lecturers, who usually prefer types that are easy to read and grade. These

regulations, restrictions, and limitations are the general problem of the Turkish educational system, which cannot be very different in other countries because of the similarities of the basic philosophies and approaches adopted, which are modern and positivistic in most aspects.
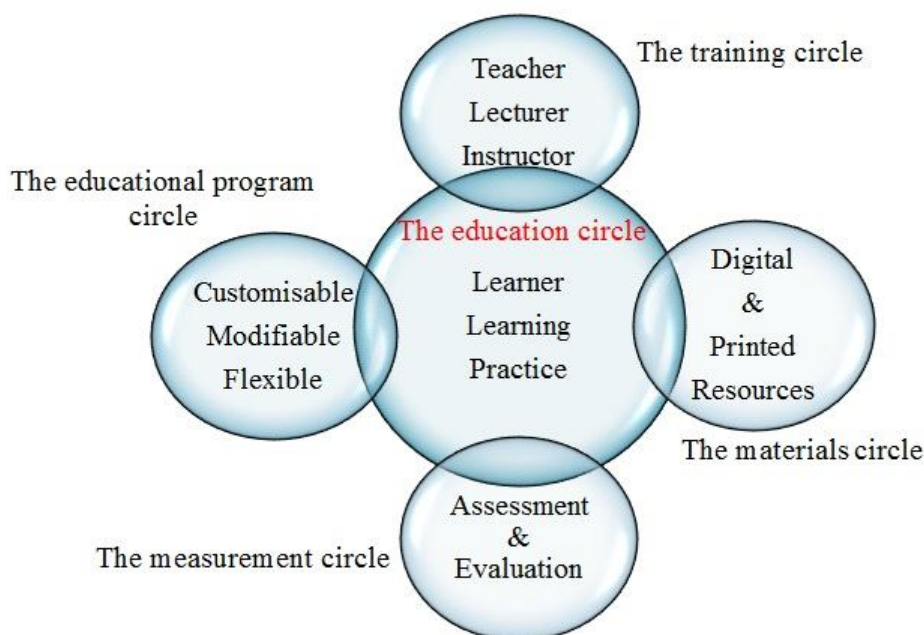
Figure 5.3. A new model of education

In accordance with the new model proposed hereby, the "classrooms" will be converted into environments that might look as in Figure 5.4. These learning conditions and environments will liberate individuals by enabling them to consult as many resources and instructors as they might prefer to embrace as authorities, and delve into specific matters from multiple aspects. Rescuing students from fixed conditions and environments will bring assortment not only to their education but also to their perceptive worlds. Otherwise, any learner will be limited by the limitations of the authorities and their knowledge and perspectives, whether they are theoretical or practical. Therefore, whereas in modern education the individual is a 'student', and the teacher is the authority over (approximately) twenty or more individuals in a physical classroom; in postmodern education the individual should be a 'learner' and the authority in making decisions related to which resources to read or follow, who to listen to, when to engage in specific topics,

how to study these, etc. In this case, the authorities of modern life will become like business owners who will have to attract learners by their knowledge, skills, attitudes, possessions, or whatever is necessary in order to become popular figures for consultation and admiration. This is a very healthy approach that will necessitate critical and creative thinking, exploration of more effective and enjoyable means of education, not only from the learners' but also from the instructors' aspect, which will also narrow the gap between the generations or between teachers and students, and move societies further in harmony. Inevitably, 'a learner and twenty teachers model' will be much more beneficial than 'a teacher and twenty students model'.
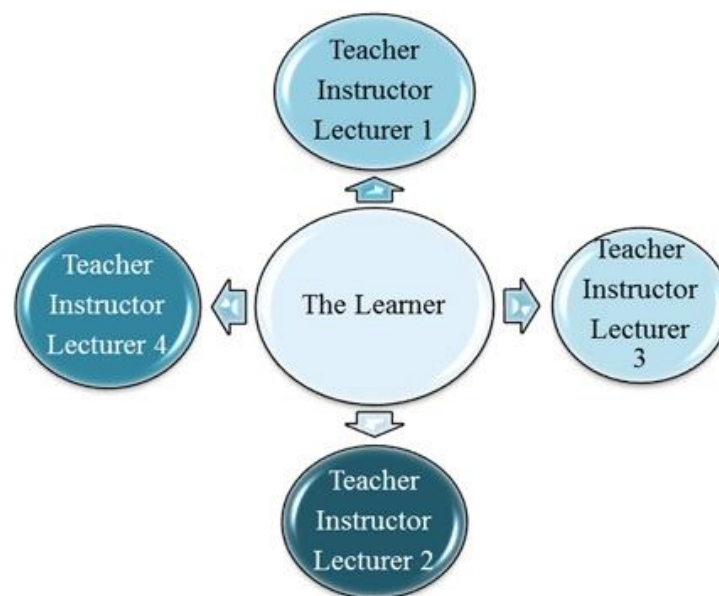
Figure 5.4. The postmodern classroom (if ever it could be called a 'room')

Both of the models discussed and suggested here are applicable in educational settings. However, it is possible to postulate that considering the recent philosophical movements and innovations and progress in technology, the profiles of the new generation learners, their needs, interests, skills, expectations, tendencies, etc. necessitate the adaptation to upgraded settings and conditions as manipulated by the help of Figures 5.3. and 5.4. This is very similar to the way we upgrade the operational systems of our computers to the higher version, although it is not a must but provides additional advantages in the future. Concerning specifically the experiment carried out in the present

study, the researcher would suggest further research in the LdL methodology that will be employed for other aspects of FL vocabulary education to reveal the advantages and disadvantages that it would pose for learners of different ages and linguistic abilities, skills, and proficiencies. It would be also interesting to observe the attitudes of the teachers who are subjected to adopting and using the earlier mentioned postmodern philosophies and approaches to education, with and/or without measurement and assessment procedures. In essence, the problem is philosophical, and thus, proposing pedagogical implications for teachers might sound like a utopia, without prompting the authorities to shift perspective and encourage them to try new approaches, techniques, methodologies, strategies, etc.

Notwithstanding the current paradigmatic system, it might be interesting and beneficial to provide learners with complete freedom related to place, time, content, etc., and to establish new systems that will allow international and interdisciplinary involvements in education. It would be more than good if a learner in the Faculty of Education from Turkey, for instance, could take courses in the various departments of different faculties; and even from the universities of other countries. The current technology provides us with every necessary condition to implement this idea. Wouldn't it be nice if a learner in the ELT Department at Canakkale Onsekiz Mart University could (have options to) get enrolled on the course of Basic Quantum Mechanics at Stanford University, for example, or on one of the possible philosophy or psychology courses of well-known and popular scholars around the world accordingly with individual interests during undergraduate or graduate education? Today's online facilities make this possible, and only more desire and effort should be allocated to make these dreams practically available. It would be easier to practise these initially at local levels, at least. For instance, large scale pilot studies (in certain cities, universities, or faculties) might be set up to reveal the advantages and/or disadvantages of an education that will be completely modifiable and learner initiated, concerning all aspects such as assessment, course hours, methodologies, etc. One might comment that taking overseas courses would be expensive, which might be true. However, constructing buildings (as educational institutions) and maintaining these (paying for the heating or cooling, water and electricity as well as other supplies), furnishing the classrooms with necessary equipment, etc. are also expensive. Establishments might devote effort to provide support (economic and policy related) for the learners who are willing to improve, and countries may contribute to this by balancing investments in physical and digital environments.

In a narrower, FL vocabulary specific scope, the learning models of modern and postmodern, the researcher would suggest, are similar to Figure 5.5 and 5.6, respectively.
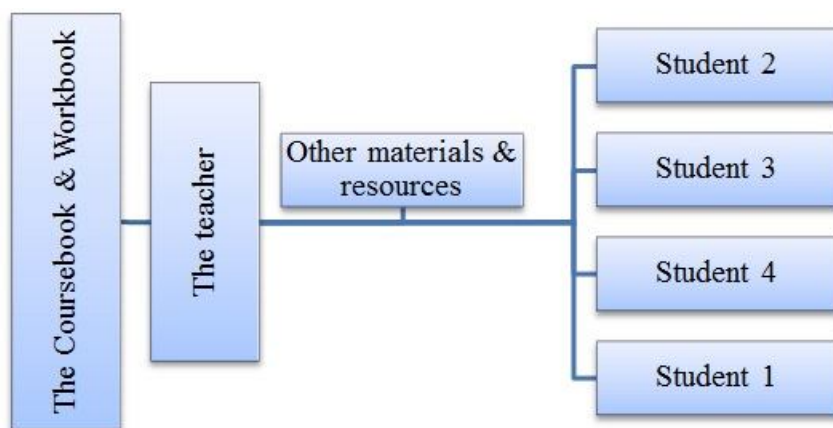
Figure 5.5. The modern FL vocabulary learning model

The modern models, as also specified and discussed earlier, both here and in the philosophical sections of the study, use strict and well-defined structures. In the current structure, FL courses very often use certain books and workbooks, which contain specific vocabulary and exercises (types) that direct teachers to introduce and apply these on their students. Certainly, teachers have the opportunity to use extra materials during teaching these words (and maybe some others) besides exploiting the formal course and work books. The students on the other hand, are to study and memorise the words that they are introduced to, and also some other words of their own interest or choice, but which will not necessarily match the material styles and contents of their teachers. In this case, the formal education provided for them will fail in assisting their needs that fall outside the formal scope as illustrated by Figure 5.5.
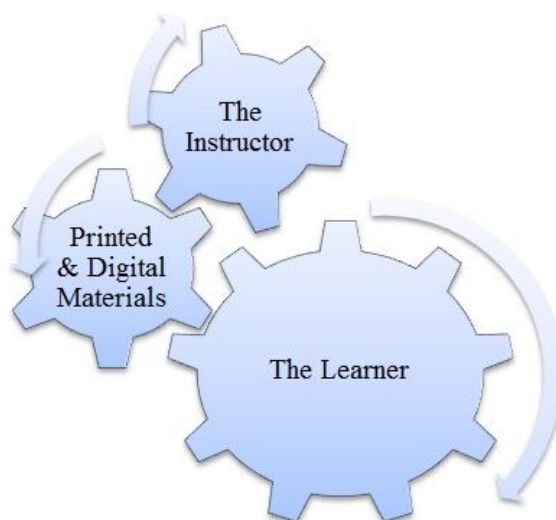
Figure 5.6. The postmodern FL vocabulary learning model

As an alternative model, the researcher would propose Figure 5.6, which seems more inclusive and considerate regarding individual needs rather than the requisites or contents of a given book and/or topic, subject, etc. In this model, the learner is the initiator and exploiter of the lexical applications, contents, and processes. In other words, it is the individual that determines the words he would like to learn and practise as well as the main pushing force behind the instructor and employment of certain vocabulary resources. In order to implement this model, FL instructors will have to either ask the learners to prepare their own glosses and related materials and exercises from a variety of resources or conduct needs assessment with the learners, and guide them towards the useful resources as the researcher did in the present study. Most of the participants declared that reading academic texts was distractive because of lack of academic word knowledge, which as an instructor triggered my attention towards the AWL that the researcher introduced to the learners and let them work on in the most suitable way for them. Both the instructor and the materials we used were at the disposal of the learners whereas in the modern approaches the students become as if they are subjects in the service of the teacher and the educational program and materials. In sum, every effort and investigation of the discussed philosophical, psychological, and educational approaches from the bottom-up approach will contribute positively to the scientific world and be welcomed. Researchers will benefit from the unusual paradigms and reports on the best practices as well as from the bold hypotheses and theories in the fields of their expertise.

CHAPTER 6

Conclusion

The current study is unique in the way that it is written as well as concerning the conducted experiment. This is basically a philosophical work that investigates FL education generally and FL vocabulary instruction specifically. The style of the work can be claimed to show postmodern characteristics as it does not give strict and concrete explanations from specific sources but leads the reader(s) to research and find the related reference if it is of interest, and to use their imaginations while stretching the limits of their brain powers. The researcher should speculate that giving concrete results and frameworks on certain experiments in social studies would not save the future by providing fully generalizable, sustainable, and applicable solutions, but just reflect snapshots of short time spans and limited conditions. Therefore, it would be better, particularly in social studies, to open horizons by doing investigations in the ideas dimension, and to force open the doors to new paradigms and applications.

The current study investigated FL vocabulary acquisition and retention that results from direct learner-active tasks, which should contribute positively to the field of education generally, and particularly to vocabulary instruction. The current study benefited from the facilities of ICT such as computers, the Internet and Web, MOODLE, other software, etc. both in the conduction of the research and in the implementation of the classes of the course given in the department. In other words, the researcher adapted the LdL technique to help learners acquire English academic words while combining this with technology artefacts. The LdL and technology combination provides the necessary opportunities that will move current education to a further level, or alter it by addressing a larger scale of diversity in education and society, and therefore accelerate total cumulative progress, particularly in social studies.

The concrete results and observations of the present study make it safe from the positivistic paradigm to propose that the LdL technique and construct that was used for the acquisition and retention of words from the AWL has significant positive contributory effects on learners at university level. It can be confidently reported that the LtPE vocabulary learning structure of the present study did not result in less acquisition of words compared to the traditional methods of teaching lexical items (i.e. LtDE). Moreover, statistical differences were detected particularly in the retention rates regarding both

receptive and productive results between the control and experiment groups, in favour of the experiment group (i.e. LtPE). These observations are in parallel with the depth of processing principles, and Involvement Load Hypothesis, which indicate that the more quantitative and especially qualitative involvement or engagement in specific activity there is, the higher positive results will be in the long term. This coincides with the idea that higher and richer levels of information processing result in better retention of information after being introduced to memory as well as the one which argues that teaching others promotes learning and retention. The quantitative evidence revealed that learner-active and creative, self-directed opportunities for learning result in higher quality retention, which however, should be approached with caution not to generalise because the group of participants in the present study as well as the attitudes and manners of the instructor might not apply to all educational settings. Nevertheless, the findings show that criticisms or concerns related to the inappropriateness of leaving students to work on their own or allowing them to determine and direct their own learning processes seem to be groundless. Autonomy, when accompanied with intrinsic motivation (that seems to increase by the use of technology and related applications), seems to be useful in the long term.

The most interesting or significant inferences of the present study, perhaps, are the ones extracted from the qualitative examinations. It has been observed that the beliefs of the learners related to the contents being studied are important determiners of intrinsic motivation that will lead to flow and maintain interest and concentration during the learning processes. It has been observed that the participants to a great extent believed in the importance of vocabulary, using technology, task-based education, and the atmosphere in education that could be enhanced by the positive attitudes of the instructor. The participants also stressed that productive and practical skills are very important, and maintained that technology could be used primarily for vocabulary learning and practice, which altogether contributed to the positive outcomes of the study. The researcher is not sure, however, if similar results could be reached if the participants did not believe in the importance of vocabulary or did not like task-based applications, etc. The learners were happy with what they were confronted with related to both content and procedures, which should have affected their continuous motivation (i.e. flow experience). This is more than a traditional educational process, which puts the students at the centre and values individual needs and interests rather than imposing fixed content and procedures. Although students benefit a great deal from the teacher/instructor and need his/her assistance, they feel more

motivated when studying autonomously, and do not necessarily need the instructor in order to feel high motivation. It was also noticed that the participants preferred working with computers and online rather than in a traditional in-classroom way, which was additional evidence for the assertions that individual, autonomous, and technology-facilitated educational conditions improve the motivation of the students.

Additionally, it has been determined that exam-free and weekly task-based formative evaluation has extremely positive effects on and contributions to the mental and emotional states of the students. Moreover, it has been observed that this type of assessment approach fosters some habits (being responsible, timely, organised, etc.) that contribute to the development of the character which are important additions to education that should not be neglected besides the progress in professional or academic competencies. Certainly, people should be trained as teachers, doctors, engineers, or whatever; but they should be educated as good and high-quality persons, first of all. One more point to indicate is that the current profile and expectation of the learners is towards blended course delivery systems although the participants of the present study particularly were highly motivated when they were provided with flexibility and comfort. This, however, should not be interpreted as if learners experience flow when they relax. What is implied here is that students feel more comfortable when they are allowed some space and privacy when they are confronted with challenges compared to being pushed and judged or expected to adapt immediately to the newly introduced tasks and/or educational conditions. Flow seems to occur only after people feel ready to deal with problems mentally and emotionally for the sake of their own benefit and self-satisfaction rather than the pure task of pleasing the teacher/instructor or fulfilling their responsibilities as learners. In this case, opportunities and chances provided to learners should be as varied and limitless as possible.

Another very important observation has been that exam-free evaluation creates an environment that enhances closer connections between the teacher and students, which improves the quantity and quality of the feedback received by the learners through weekly transmission. Nevertheless, the researcher should emphasise that the current modern approach to assessment would hardly allow for or approve of formative evaluation since it needs certain numbers as indicators of success and as means of ordering and classifying people. There is always need for tests and results, which in the universities of Turkey are

usually scored according to the 'bell curve' principle. This application resulted in unpleasant and undetermined cases both for the learners and the instructor such as the system appointing BA grade to the participants whose both Mid-term and Final exam scores were 100. The assessment system's paradigm and algorithm is so positivistic that it will not allow for the manual entering of individual letter grades, and thus, results in grading excellent learners who have responsibly attended and completed all given tasks on time and satisfactorily by giving them BA, which certainly does not reflect their real brilliance. As the instructor the researcher would give them AA each, because they deserved this. This in my opinion is a scandal that should make every educator ashamed although they are not responsible for the instalment of the mathematical algorithm(s) in the automated evaluation system (the case is Uludag University specific, but would not change in other places that use the bell curve automated assessment system). In the first place, assessing people with narrow-minded tests and inappropriate systems, and classifying or categorising them according to the results of these is not humanistic at all; and in the second, stressing people out by authoritarian and control oriented understandings is no different than emotional harassment and oppression. In the Turkish societal environments this is usually criticised by the expression "treating children like race horses", but is never investigated for the philosophical reason(s) that lay behind this.

To conclude, the researcher would propose the following in relation to social science studies in general, and FL (vocabulary) learning in particular according to the observations and results acquired from/during the present study:

1. Philosophical and psychological aspects of any investigation should be underlined prior to narrowing the scope to given fields of expertise, especially in social sciences, and also other research that is concerned with the common interest and benefit of humanity.

2. Social sciences or studies should trigger investigations that will contribute to unconventional thinking and creation of different paradigms, which will expand the horizon of human beings and inspire further social progress rather than reporting on due diligence or findings that cannot be generalizable or sustainable.

3. Problems should be approached from the base rather than by concentrating on the upper levels and trying to change these. That is to say, if the fruits of an

apple tree are full of unwanted organisms, poisoning the apples or cutting the branches, etc. will be useless without examining the soil that the tree lives in.

4. In order to ensure humanistic education, there is need to adopt humanistic philosophies basically and first of all, while building on the essentials of these by adapting all applications accordingly.

5. The so-called gap between theory and practice as well as teachers and students can be minimised once the hierarchy and power between the top and bottom is minimised in all aspects of ontological and epistemological problems, and also in practical issues.

6. The roles, responsibilities, and expectations in education need to be modified in accordance with individual needs rather than societal benefit, even if this would be at the expense of technical and professional skills or income as long as personality traits and humanitarian qualities are empowered.

7. Learning is an individual endeavour that should be addressed individually by organising the system(s) according to multiple intelligences, needs, interests, skills, etc. so that it becomes a joy rather than a nuisance and source of boredom.

8. Teachers should notice that technology, particularly the Internet, is a powerful and widespread facility that assists and serves learners more and better than they do; and they should revise the methods they use, especially their educational philosophies.

9. Foreign language (vocabulary) instruction suffers diversity both theoretically and practically; and contains abundant information from the same paradigm that contributes to the fashion of the day by generalising and applying similar methodologies to most FL settings, which should be replaced by embracing cross disciplinary names, ideas, applications, etc. and alternative practices such as (digital) game-based learning.

10. The ones who do the talking or the preparation or any other activity involving cognitive and affective domains actually do the learning; these are usually the teachers/instructors but should be the opposite (i.e. the learners) in order to create and internalise knowledge for prolonged retention of it.

The current list of items can be extended. However, rather than going into details, it would be more useful to concentrate on the main topics or matters that will help by providing basic principles to evaluate the inconsistencies in the upper levels of problems. In sum, fundamentally there is need for a new philosophy of social science as the scientific standing of social inquiry has run out of steam because for many people natural science no longer induces the kind of reverence it once did, and thus, it is hard to keep considering positivism as the benchmark in the current age of technology, globalisation, and multiculturalism (Fay, 1996, p. 1). Further research might focus more on the learner and learning in relation to styles and strategies to reveal different naturalistic scenes and insights into the problems in education. Common sense and shared wisdom have produced brilliant ideas, some of which have been underlined in the current thesis work, which need to be evaluated from the humanitarian perspective rather than the scientific one if we are to end up in new worlds and/or dimensions.

As the proverb sys: "Do not look where you fell but where you slipped."

REFERENCES

Akbarian, I. H. (2010). The relationship between vocabulary size and depth for ESP/EAP learners. *System*, *38*(3), 391-401.

Akpinar, K. D. (2013). Lexical inferencing: perceptions and actual behaviours of Turkish English as a Foreign Language Learners' handling of unknown vocabulary. *South African Journal of Education*, *33*(3), 00-00.

Albion, P. R., & Ertmer, P. A. (2002). Beyond the foundations: The role of vision and belief in teachers' preparation for integration of technology. *TechTrends*, 46(5), 34-38.

Alderson, J. C. (2007). Judging the frequency of English words. *Applied Linguistics*, *28*(3), 383-409.

Alise, M. A., & Teddlie, C. (2010). A continuation of the paradigm wars? Prevalence rates of methodological approaches across the social/behavioral sciences. *Journal of Mixed Methods Research*, *4*(2), 103-126.

Allan, R. (2009). Can a graded reader corpus provide 'authentic'input?. *ELT journal*, *63*(1), 23-32.

Amoia, M., Bretaudiere, T., Denis, A., Gardent, C., & Perez-Beltrachini, L. (2012). A Serious Game for Second Language Acquisition in a Virtual Environment. *Journal on Systemics, Cybernetics and Informatics (JSCI)*, *10*(1), 24-34.

Anderson, G. L., & Herr, K. (1999). The new paradigm wars: Is there room for rigorous practitioner knowledge in schools and universities?. *Educational researcher*, *28*(5), 12-40.

Arcilla, R. V. (2002). Why aren't philosophers and educators speaking to each other?. *Educational Theory*, 52(1), 1-11.

Arikan, A. (2006). Postmethod condition and its implications for English language teacher education. *Journal of Language and Linguistic Studies*, 2(1), 1-11.

Bandura, A. (1997). *Self-Efficacy: The Exercise of Control*. New York: Freeman

Bandura, A. (2006). Guide for constructing self-efficacy scales. *Self-efficacy beliefs of adolescents*, 5, 307-337.

Bao, X. H., & Lam, S. F. (2008). Who makes the choice? Rethinking the role of autonomy and relatedness in Chinese children's motivation. *Child development*, 79(2), 269-283.

Barcroft, J. (2007). Effects of opportunities for word retrieval during second language vocabulary learning. *Language Learning*, 57(1), 35-56.

Barnbeck, A. K., & Neumann, T. (2006). Lernen durch Lehren (LdL) in theory and practice. http://lernen-durch-lehren.de/Material/f_/ldlintheoryandpractice.pdf

Becker,A. K., & Neumann, T. (2007). Digital game-based learning once removed: Teaching teachers. *British Journal of Educational Technology*, 38(3), 478-488.

Bell, D. M. (2003). Method and postmethod: are they really so incompatible?. *TESOL quarterly*, 37(2), 325-336.

Bennett, H. (1972). *No More Public School*. Random House Inc. New York.

Bialystok, E. (2000, September). Against isolationism: Cognitive perspectives on second-language research. In *Plenary session at the Second Language Research Forum*.

Biesta, G. (2004). Education after deconstruction. In *Poststructuralism, philosophy, pedagogy*, 27-42.

Biesta, G. (2010). Editorial: Publishing in studies in philosophy and education. *Studies in Philosophy and Education*, 29(1), 1-3.

Birkenkrahe, M., & Mundt, M. (2009). From crisis to creativity: undergraduates craft their own online learning modules. *International Journal of Innovation in Education*, 1(1), 96-119.

Biswas, G., Jeong, H., Kinnebrew, J. S., Sulcer, B., & ROSCOE, R. (2010). Measuring self-regulated learning skills through social interactions in a teachable agent environment. *Research and Practice in Technology Enhanced Learning*, 5(02), 123-152.

Biswas, G., Leelawong, K., Belynne, K., Viswanath, K., Schwartz, D., & Davis, J. (2004, January). Developing learning by teaching environments that support self-regulated learning. In *Intelligent Tutoring Systems* (pp. 730-740). Springer Berlin Heidelberg.

Biswas, G., Leelawong, K., Belynne, K., Viswanath, K., Vye, N., Schwartz, D., & Davis, J. (2004, August). Incorporating self regulated learning techniques into learning by teaching environments. In *The Twenty Sixth Annual Meeting of the Cognitive Science Society* (pp. 120-125).

Biswas, G., Leelawong, K., Schwartz, D., Vye, N., & The Teachable Agents Group at Vanderbilt. (2005). Learning by teaching: A new agent paradigm for educational software. *Applied Artificial Intelligence*, 19(3-4), 363-392.

Blair, K., Schwartz, D., Biswas, G., & Leelawong, K. (2007). Pedagogical agents for learning by teaching: Teachable agents. *Educational Technology-Saddle Brook Then Englewood Cliffs NJ-*, 47(1), 56.

Brookfield, S. D. (1987). *Developing critical thinkers*. San Francisco: Jossey-Bass.

Brown, H. D. (1987). *Principles of Language Learning and Teaching*. (2nd ed.). Englewood Cliffs, New Jersey: Prentice Hall.

Brown, H. D. (1994). *Teaching by principles: An interactive approach to learning pedagogy*. Prentice Hall Regents.

Brown, H. D. (2002). English language teaching in the "post-method" era: Toward better diagnosis, treatment, and assessment. *Methodology in language teaching: An anthology of current practice*, 9-18.

Brzycki, D., & Dudt, K. (2005). Overcoming barriers to technology use in teacher preparation programs. *Journal of Technology and Teacher Education*, 13(4), 619-641.

Buehl, M. M., & Alexander, P. A. (2009). Beliefs about learning in academic domains, 479-501. In K. Wentzel & A. Wigfield (Eds.). *Handbook of Motivation at School*. Routledge.

Burgmeier, A., & Zimmerman, C. B. (2007). *Inside reading 1 instructor pack: The academic word list in context*. New York: Oxford University Press.

Busse, V., & Walter, C. (2013). Foreign Language Learning Motivation in Higher Education: A Longitudinal Study of Motivational Changes and Their Causes. *The Modern Language Journal*, 97(2), 435-456.

Caine, R. N., & Caine, G. (1997). *Education on the edge of possibility*. Association for Supervision and Curriculum Development, 1250 N. Pitt Street, Alexandria, VA.

Can, A. (2013). *SPSS ile Bilimsel Araştırma Sürecinde Nicel Veri Analizi*. Pegem Akademi, Ankara.

Carr, D. (2003). *Making Sense of Education: An introduction to the philosophy and theory of education and teaching*. Routledge.

Carter, R. & McCarthy, M. (1991). *Vocabulary and Language Teaching*. Longman, UK.

Cervatiuc, A. (2007). Assessing Second Language Vocabulary Knowledge. *International Forum of Teaching Studies*, 3(3), 40-47.

Chapelle, C. (2003). *English language learning and technology: Lectures on applied linguistics in the age of information and communication technology (Vol. 7)*. John Benjamins.

Chiu, L. L., & Liu, G. Z. (2013). Effects of Printed, Pocket Electronic, and Online Dictionaries on High School Students' English Vocabulary Retention. *The Asia-Pacific Education Researcher*, 1-16.

Chomsky, N. (1959). A review of BF Skinner's Verbal Behavior. *Language*, 35(1), 26-58.

Christensen, R. (2002). Effects of technology integration education on the attitudes of teachers and students. *Journal of Research on Technology in Education*, 34(4), 411-434.

Chung, T. M., & Nation, P. (2003). Technical vocabulary in specialised texts. *Reading in a Foreign Language*, 15(2), 103-116.

Cobb, T. (n.d.). The Web Vocab Profiler. Available at http://www.lextutor.ca/vp/

Cobb, T. (n.d.). *Why and how to use frequency lists to learn words*. Retrieved from http://www.lextutor.ca/research in November 12, 2013.

Cobb, T., & Horst, M. (2004). Is there room for an academic word list in French? P. Bogaards, B. Laufer (Eds.), *Vocabulary in a second language: Selection, acquisition, and testing*, John Benjamin Publishing, 15-38.

Cortese, C. G. (2005). Learning through teaching. *Management Learning*, 36(1), 87-115.

Coxhead, A. (1998). *An academic word list (Vol. 18)*. School of Linguistics and Applied Language Studies, Victoria University of Wellington.

Coxhead, A. (2000). A new academic word list. *TESOL Quarterly*, 34(2), 213-238.

Coxhead, A. (2008). Phraseology and English for academic purposes. *Phraseology in language learning and teaching*, 149-161.

Coxhead, A. (2011). The AcademicWord List 10 years on: Research and teaching implications. *TESOL Quarterly*, 45(2), 355–362.

Coxhead, A., & Nation, P. (2001). The specialised vocabulary of English for academic purposes. J. Flowerdew, M. Peacock (Eds.), *Research Perspectives on English for Academic Purposes*, Cambridge University Press, Cambridge (2001), 252–267.

Craik, F. I., & Lockhart, R. S. (1972). Levels of processing: A framework for memory research. *Journal of Verbal Learning and Verbal Behavior*, 11(6), 671-684.

Craik, F. I., & Tulving, E. (1975). Depth of processing and the retention of words in episodic memory. *Journal of Experimental Psychology: General*, 104(3), 268.

Crookes, G., & Schmidt, R. W. (1991). Motivation: Reopening the research agenda. *Language Learning*, 41(4), 469-512.

Csikszentmihalyi, M. (1990). *Flow: The Psychology of Optimal Experience*. HarperCollins, New York.

Curtis, B. (2003, September). Practical applications of Postmodern Theory for promoting learner autonomy in a foundation studies program. In *Proceedings of the Independent Learning Conference*.

Dale E. (1954). *Audiovisiual methods in teaching*, 2nd ed. Holt, Reinhart & Winston: New York.

Dangwal, R., & Kapur, P. (2009). Learning through teaching: Peer-mediated instruction in minimally invasive education. *British Journal of Educational Technology*, 40(1), 5-22.

de Freitas, S., & Griffiths, M. (2008). The convergence of gaming practices with other media forms: what potential for learning? A review of the literature. *Learning, Media and Technology*, 33(1), 11-20.

De Groot, A. (2006). Effects of stimulus characteristics and background music on foreign language vocabulary learning and forgetting. *Language Learning*, 56(3), 463-506.

De Groot, A., & Keijzer, R. (2000). What Is Hard to Learn Is Easy to Forget: The Roles of Word Concreteness, Cognate Status, and Word Frequency in Foreign‑Language Vocabulary Learning and Forgetting. Language Learning, 50(1), 1-56.

Deci, E. L. (1971). Effects of externally mediated rewards on intrinsic motivation. *Journal of Personality and Social Psychology*, 18(1), 105.

Deci, E. L., & Ryan, R. M. (1980). The empirical exploration of intrinsic motivational processes. *Advances in Experimental Social Psychology*, 13(2), 39-80.

Deci, E. L., & Ryan, R. M. (1985). *Self-Determination*. John Wiley & Sons, Inc.

Deci, E. L., & Ryan, R. M. (2000). The" what" and" why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227-268.

Deci, E. L., Koestner, R., & Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin*, 125(6), 627-668.

Deci, E. L., Schwartz, A. J., Sheinman, L., & Ryan, R. M. (1981). An instrument to assess adults' orientations toward control versus autonomy with children: Reflections on intrinsic motivation and perceived competence. *Journal of Educational Psychology*, 73(5), 642.

Derrida, J. (1976). *Of Grammatology*. Trans. Gayatri Chakravorty Spivak. Baltimore: John Hopkins UP.

Derrida, J. (1978). *Writing and difference*. University of Chicago Press.

Derrida, J. (1992). *Force of law: The mystical foundation of authority*. In Deconstruction and the Possibility of Justice (Ed.) Drucilla Cornell.

Dilek, Y., & Yürük, N. (2013). Using Semantic Mapping Technique in Vocabulary Teaching at Pre-Intermediate Level. *Procedia-Social and Behavioral Sciences*, 70, 1531-1544.

Dinsmore, D. L., & Alexander, P. A. (2012). A critical discussion of deep and surface processing: What it means, how it is measured, the role of context, and model specification. *Educational Psychology Review*, 24(4), 499-567.

Dornyei, Z. (2006). Individual differences in second language acquisition. *AILA Review*, 19(1), 42-68.

Dörnyei, Z. (2011). *Research methods in applied linguistics*. Oxford: Oxford University Press.

Egbert, J. (2003), A Study of Flow Theory in the Foreign Language Classroom. *The Modern Language Journal*, 87, 499–518. doi: 10.1111/1540-4781.00204

Ehsanzadeh, S. J. (2012). Depth versus Breadth of Lexical Repertoire: Assessing Their Roles in EFL Students' Incidental Vocabulary Acquisition. *TESL Canada Journal*, 29(2), 24.

Ellis, R. (2001). *The study of second language acquisition*. Oxford University Press.

Elston-Güttler, K. E., Paulmann, S., & Kotz, S. A. (2005). Who's in control? Proficiency and L1 influence on L2 processing. *Journal of Cognitive Neuroscience*, 17(10), 1593-1610.

Engeser, S., & Rheinberg, F. (2008). Flow, performance and moderators of challenge-skill balance. *Motivation and Emotion*, 32(3), 158-172.

Entwistle, N. (2000, November). Promoting deep learning through teaching and assessment: conceptual frameworks and educational contexts. In *TLRP conference, Leicester*.

Ertmer, P. A. (2005). Teacher pedagogical beliefs: The final frontier in our quest for technology integration?. *Educational Technology Research and Development*, 53(4), 25-39.

Espinosa, S. M. (2003). Vocabulary: reviewing trends in efl/esl instruction and testing. *Odisea: Revista de estudios ingleses*, (4), 97-112.

Fay, B. (1996). *Contemporary philosophy of social science: A multicultural approach*. Oxford: Blackwell.

Felix, U. (1999). Exploiting the Web for language teaching: selected approaches. *ReCALL*, 11, 30-37.

Fiorella, L., & Mayer, R. E. (2013). The Relative Benefits of Learning by Teaching and Teaching Expectancy. *Contemporary Educational Psychology*, 38, 281-288.

Fitzpatrick, T. (2007). Word association patterns: Unpacking the assumptions. *International Journal of Applied Linguistics*, 17(3), 319-331.

Flowerdew, J. (2006). Use of signalling nouns in a learner corpus. *International Journal of Corpus Linguistics*, 11(3), 345-362.

Flowerdew, L. (2002). Corpus-based analyses in EAP. *Academic Discourse*, 95-114.

Flowerdew, L. (2004). The argument for using English specialized corpora to understand academic and professional language. Discourse in the professions. *Perspectives from Corpus Linguistics*, 11-33.

Flowerdew, L. (2005). An integration of corpus-based and genre-based approaches to text analysis in EAP/ESP: Countering criticisms against corpus-based methodologies. *English for Specific Purposes*, 24(3), 321-332.

Foucault, M. (1966). *The order of things [Les mots et les choses]*. Paris: Gallimard.

Foucault, M. (1972). *The archaeology of knowledge*, trans. AM Sheridan Smith. London: Tavistock.

Foucault, M. (1980a). *Power/knowledge: Selected interviews and other writings*, 1972-1977. Random House Digital, Inc..

Foucault, M. (1980b). Two Lectures, trans. K. Soper. In C. Gordon (Ed.). *M. Foucault: Power/knowledge: Selected Interviews and Other Writings*, 1972-1977. Brighton: Harvester Press.

Foucault, M. (1994). *La Philosophie Analytique de la Politique*. In D. Defert and F. Ewald with J. Lagrange (Eds.). Dits et écrits, 1954-1988, Vol. 3, No 232. Paris: Gallimard.

Fowle, C. (2002). Vocabulary notebooks: implementation and outcomes. *ELT Journal*, 56(4), 380-388.

Franciosi, S. J. A Comparison of Computer Game and Language-Learning Task Design Using Flow Theory. *CALL-EJ*, 12(1), 11-25.

Freire, P. (1970). The banking concept of education. *Educational foundations: An anthology of critical readings*, 99-111.

Freire, P. (2000). *Pedagogy of the oppressed*. Continuum International Publishing Group.

Frick, R. (2005). Students teach each other literature (lernen durch lehren)* Working with "The Curious incident of the dog in the night-time", Mark Haddon, Vintage. Humanising Language Teaching, Year 7; Issue 5; September 05. Available at http://www.hltmag.co.uk/sep05/sart04.htm

Fries, C. C. (1945). *Teaching and Learning English as a Foreign Language*. Ann Arbor: University of Michigan Press.

Fullan, M. G. (1993). Why teachers must become change agents. *Educational Leadership*, 50, 12-12.

Gardner, D. (2007). Validating the construct of word in applied corpus-based vocabulary research: A critical survey. *Applied Linguistics*, 28(2), 241-265.

Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences.* New York: Basic Books.

Gardner, H. (1993). *Multiple intelligences: the theory in practice:[a reader]*. Basic books.

Gardner, H. (1999). *Intelligence reframed: Multiple intelligences for the twenty-first century*. Basic Books.

Gardner, H. (2003). Multiple intelligences after twenty years. *American Educational Research Association, Chicago, Illinois, 21*.

Gardner, R. C. (1985). *Social psychology and second language learning: The role of attitudes and motivation*. London: Edward Arnold.

Gardner, R. C., & Lambert, W. E. (1972). *Attitudes and Motivation in Second-Language Learning*. Rowley, MA: Newbury House.

Gass, S. M., & Selinker, L. (2008). *Second language acquisition: An introductory course*. Routledge.

Gee, J. P. (2003). What video games have to teach us about learning and literacy. *Computers in Entertainment (CIE)*, 1(1), 20-20.

Gee, J. P. (2004). Learning by design: Games as learning machines. *Interactive Educational Multimedia*, (8), 15-23.

Ghazal, L. (2007). Learning vocabulary in EFL contexts through vocabulary learning strategies. *Novitas-Royal*, 1(2), 84-91.

Gillespie, J., & McKee, J. (1999). Resistance to CALL: Degrees of student reluctance to use CALL and ICT. *ReCALL*, 11(1), 38–46.

Gillet, N., Vallerand, R. J., & Lafrenière, M. A. K. (2012). Intrinsic and extrinsic school motivation as a function of age: the mediating role of autonomy support. *Social Psychology of Education*, 15(1), 77-95.

Girard, D. (1977). Motivation: the responsibility of the teacher. *ELT Journal*, 31, 97–102.

Goleman, D. 1996. *Emotional intelligence: Why it can matter more than IQ?*. London: Bloomsbury Publishing.

Goulden, R., Nation, I. S. P., & Read, J. (1990). How large can a receptive vocabulary be? *Applied Linguistics*, 11(4), 341–63.

Grace, C. A. (2000). Gender differences: Vocabulary retention and access to translations for beginning language learners in CALL. *The Modern Language Journal*, 84(2), 214-224.

Grayling, A.C. (1998). *Philosophy 1: A Guide through the Subject*. Oxford University Press.

Grolnick, W. S., & Ryan, R. M. (1987). Autonomy in children's learning: An experimental and individual difference investigation. *Journal of Personality and social Psychology*, 52(5), 890.

Groot, P. J. (2000). Computer assisted second language vocabulary acquisition. *Language Learning & Technology*, 4(1), 60-81.

Grudnoff, L., & Tuck, B. (2003). Learning about teaching, learning while teaching, and becoming a teacher. *English teaching: Practice and critique*, 2(1), 33-42.

Grzega, J. (2005). Learning by teaching: The didactic model LdL in university classes. via *http://www. grzega. de or http://www. ldl. de/material/berichte/uni/uni. htm*.

Grzega, J. (2006). Developing More than Just Linguistic Competence. The Model LdL for Teaching Foreign Languages with a Note on Basic Global English. *Humanising Language Teaching*, 8(5).

Grzega, J., & Schöner, M. (2008). The didactic model LdL (Lernen durch Lehren) as a way of preparing students for communication in a knowledge society. *Journal of Education for Teaching*, 34(3), 167-175.

Guba, E. G., & Lincoln,Y. S. (2005). Paradigmatic controversies, contradictions, and emerging confluences. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage Handbook of Qualitative Research* (3rd ed., pp. 191-215). Thousand Oaks, CA: Sage.

Gubera, C., & Aruguete, M. S. (2013). A comparison of collaborative and traditional instruction in higher education. *Social Psychology of Education*, 1-9.

Hanbay, O. (2009). Kuantum Ögrenme Temelli Ögreterek Ögrenme Yönteminin İkinci Yabanci Dil Olarak Almancanin Ögrenilmesine Etkisi (Die Wirkung Der Methode "Lernen Durch Lehren" Auf Der Basis Von "Quantum-Lernen" Auf Das Lernen Vom Deutschen Als Tartiärspache). *Dicle Üniversitesi Ziya Gökalp Eğitim Fakültesi Dergisi*,12, 17-27.

Hancioğlu, N., & Eldridge, J. (2007). Texts and frequency lists: some implications for practising teachers. *ELT Journal*, 61(4), 330-340.

Harmer, J. (1991). *The Practice of English Language Teaching*. London/New York.

Hatami, S., & Tavakoli, M. (2013). The Role of Depth versus Breadth of Vocabulary Knowledge in Success and Ease in L2 Lexical Inferencing. *TESL Canada Journal*, 30(1), 1.

Hayden, M. J. (2012). What Do Philosophers of Education Do? An Empirical Study of Philosophy of Education Journals. *Studies in Philosophy and Education*, 31(1), 1-27.

Hazenberg, S., & Hulstun, J. H. (1996). Defining a minimal receptive second-language vocabulary for non-native university students: An empirical investigation. *Applied Linguistics*, 17(2), 145-163.

Holt, J. C. (1977). *Growing without Schooling*. Holt Associates. Boston: Massachusetts. http://www.johnholtgws.com/

Holt, J. C. (1981). *Teach your own*. Delacorte. Revised and updated by Patrick Farenga, Perseus 2003. http://dont-tread-on.me/wp-content/uploads/2012/06/Teach-Your-Own.pdf

Hong, J. C., Cheng, C. L., Hwang, M. Y., Lee, C. K., & Chang, H. Y. (2009). Assessing the educational values of digital games. *Journal of Computer Assisted Learning*, 25(5), 423-437.

Horst, M., Cobb, T., & Nicolae, I. (2005). Expanding academic vocabulary with an interactive on-line database. *Language Learning & Technology*, 9(2), 90-110.

Hothersall, D. (1995) History of Psychology, 3rd edn. New York: McGraw-Hill.

Hsu, C. L., & Lu, H. P. (2004). Why do people play on-line games? An extended TAM with social influences and flow experience. *Information & Management*, 41(7), 853-868.

Huang, S. H. (2009). A Post-method Condition Pronunciation Teaching Approach in an EFL Classroom in Taiwan. *Online Submission*.

Huckin, T., Haynes, M., & Coady, J. (1993). *Second language reading and vocabulary learning*. Norwood, NJ: Ablex.

Hulstijn, J. H., & Laufer, B. (2001). Some empirical evidence for the involvement load hypothesis in vocabulary acquisition. *Language Learning*, 51(3), 539-558.

Huntley, H. (2006). *Essential academic vocabulary: Mastering the complete academic word list*. Houghton Mifflin Company.

Illich, I. (1971). *Deschooling Society*. New York.

Jackson, S. A., & Csikszentmihalyi, M. (1999). *Flow in sports*. Human Kinetics 1.

Johnson, M. (2004). *A Philosophy of Second Language Acquisition*. Yale University Press. New Haven: London.

Johnson, R. B., & Christensen, L. (2008). *Educational research: Quantitative, qualitative, and mixed approaches (3rd ed.)*. Thousand Oaks, CA: SAGE.

Kage, M. & Namiki, H. (1990). The effects of evaluation structure on children's intrinsic motivation and learning. *Japanese Journal of Educational Psychology*, 38, 36-45.

Kaur, J., & Hegelheimer, V. (2005). ESL students' use of concordance in the transfer of academic word knowledge: An exploratory study. *Computer Assisted Language Learning*, 18(4), 287-310.

Kieffer, M. J., & Lesaux, N. K. (2012). Knowledge of words, knowledge about words: Dimensions of vocabulary in first and second language learners in sixth grade. *Reading and Writing*, 25(2), 347-373.

Kissling, E. M. (2013). Teaching pronunciation: Is explicit phonetics instruction beneficial for FL learners?. *The Modern Language Journal*, 97(3), 720-744.

Krashen, S. D. (1985). *The input hypothesis: Issues and implications* (Vol. 1, p. 985). London: Longman.

Krokfors, L., Jyrhämä, R., Kynäslahti, H., Toom, A., Maaranen, K., & Kansanen, P. (2006). Working while teaching, learning while working: students teaching in their own class. *Journal of Education for Teaching*, 32(1), 21-36.

Kumaravadivelu, B. (1994). The postmethod condition:(E) merging strategies for second/foreign language teaching. *TESOL Quarterly*, 28(1), 27-48.

Kumaravadivelu, B. (2001). Toward a postmethod pedagogy. *TESOL Quarterly*, 35(4), 537-560.

Kumaravadivelu, B. (2003). A postmethod perspective on English language teaching. *World Englishes*, 22(4), 539-550.

Kuo, Y., & Ho, H. Y. (2012). Effects of Word Card Strategy versus Word List Strategy on Taiwanese EFL Junior High School Students' Vocabulary Retention. *Electronic Journal of Foreign Language Teaching*, 9(1), 26-45.

Larsen-Freeman, D. (2000). *Techniques and Principles in Language Teaching (2nd ed.)*. Oxford: Oxford University Press.

Larson, J. E. (2009). *Educational Psychology: Cognition and Learning, Individual Differences and Motivation*. Nova Science Publishers, Inc. New York.

Laufer, B. (1998). The development of passive and active vocabulary in a second language: Same or different?. *Applied Linguistics*, 19(2), 255-271.

Laufer, B., & Nation, P. (1995). Vocabulary size and use: Lexical richness in L2 written production. *Applied Linguistics*, 16(3), 307-322.

Laufer, B., & Nation, P. (1999). A vocabulary-size test of controlled productive ability. *Language Testing*, 16(1), 33-51.

Laufer, B., Meara, P., & Nation, P. (2005). Ten best ideas for teaching vocabulary. *The Language Teacher*, 29(7), 3-6.

Lavigne, G. L., & Vallerand, R. J. (2010). The dynamic processes of influence between contextual and situational motivation: A test of the hierarchical model in a science education setting. *Journal of Applied Social Psychology*, 40(9), 2343-2359.

Leeke, P., & Shaw, P. (2000). Learners' independent records of vocabulary. *System*, 28(2), 271-289.

Leelawong, K., & Biswas, G. (2008). Designing learning by teaching agents: The Betty's Brain system. *International Journal of Artificial Intelligence in Education*, 18(3), 181-208.

Lewis, M. (2000). *Teaching Collocation. Further Developments in the Lexical Approach*. Hove: Language Teaching Publications.

Lightbown, P. M. & Spada, N. (2006). *How languages are learned (Revised Edition)*. Oxford: Oxford University Press.

Llach, M. D. P. A., & Fontecha, A. F. (2014). Lexical Variation in Learners' Responses to Cue Words: The Effect of Gender. In *Lexical Availability in English and Spanish as a Second Language* (pp. 69-81). Springer Netherlands.

Llach, M. P. A. (2012). Does L1 make a difference? Evidence from the receptive vocabulary size of Spanish and German EFL primary school learners. *The Language Learning Journal*, 1-22.

Locke, J. 1689/1975. *An essay concerning human understanding*.

Long, M. H. (1983). Native speaker/non-native speaker conversation and the negotiation of comprehensible input1. *Applied Linguistics*, 4(2), 126-141.

Lotto, L., & De Groot, A. (1998). Effects of learning method and word type on acquiring vocabulary in an unfamiliar language. *Language Learning*, 48(1), 31-69.

Lu, M. (2013). Effects of Four Vocabulary Exercises on Facilitating Learning Vocabulary Meaning, Form, and Use. *TESOL Quarterly*, 47(1), 167-176.

Lynch, B. K. (1996). *Language program evaluation: Theory and practice*. Cambridge University Press.

Lyotard, J. F. (1979). La Condition Postmoderne. Paris: Éditions de minuit.

Lyotard, J. F. (1984). *The postmodern condition: A report on knowledge (Vol. 10)*. University of Minnesota Press.

Lyotard, J. F. (1993). A Svelte Appendix to the Postmodern Question. In *Political Writings*. Trans. B. Readings & K.P. Geiman. Minneapolis: University of Minnesota.

Ma, Q., & Kelly, P. (2006). Computer assisted vocabulary learning: Design and evaluation. *Computer Assisted Language Learning*, 19(1), 15-45.

Marshall, J. D. (Ed.). (2004). *Poststructuralism, philosophy, pedagogy (Vol. 12)*. Springer.

Martin, J. P. (1985). *Zum Aufbau didaktischer Teilkompetenzen beim Schüler: Fremdsprachenunterricht auf der lerntheoretischen Basis des Informationsverarbeitungsansatzes* [On pupils' development of aspects of didactic competence: Foreign language teaching on the basis of the information processing approach in learning theory]. Tübingen, Germany: Narr.

Martin, J. P. (1994). *Vorschlag eines anthropologisch begründeten Curriculums für den Fremdsprachenunterricht* [Proposal for an anthropology-based curriculum for foreign language teaching]. Tübingen, Germany: Narr.

Martin, J. P. (1999). Schulklasse als Betrieb: Zur Vorbereitung auf die Arbeitswelt in der gymnasialen Oberstufe [The classroom as enterprise: On preparation for the job market in final college classes]. In *Für eine Schule der Zukunft: Fachdidaktische Beiträge*, ed. I. Hemmer and H. Selzer, 63–83. Dettelbach, Germany: Röll.

Martin, J. P. (2001). 'Lernen durch Lehren'–Vorbereitung auf die Wissensgesellschaft. *http://www. ldl. de/material/aufsatz/tuebingen. pdf*.

Martin, J. P. (2002). 'Weltverbesserungskompetenz' als Lernziel? ['World improvement competence' as a learning objective?]. *Pädagogisches Handeln: Wissenschaft und Praxis im Dialog 6, no. 1*): 71–76, http://www.ldl.de.

Martin, J. P. (2004). «Lernen durch Lehren»: quand les apprenants font la classe. *Recherche et pratiques pédagogiques en langues de spécialité. Cahiers de l'Apliut*, 23(1), 45-56.

Martin, J. P., & Oebel, G. (2007). Lernen durch lehren: Paradigmenwechsel in der Didaktik. *Deutschunterricht in Japan, Zeitschrift des Japanischen Lehrerverbandes*, (12), 12.

Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370-396. doi: 10.1037/h0054346

Mayo, C. (2011). Philosophy of education is bent. *Studies in Philosophy and Education*, 30(5), 471-476.

McCrostie, J. (2007). Examining learner vocabulary notebooks. *ELT Journal*, 61(3), 246-255.

Meara, P. M., & Alcoy, J. C. O. (2010). Words as species: An alternative approach to estimating productive vocabulary size. *Reading in a Foreign Language*, 22(1), 222-236.

Meara, P., & Buxton, B. (1987). An alternative to multiple choice vocabulary tests. *Language Testing*, 4(2), 142-154.

Meara, P., & Fitzpatrick, T. (2000). Lex30: an improved method of assessing productive vocabulary in an L2. *System*, 28(1), 19-30.

Meara, P., & Jones, G. (1988). Vocabulary size as a placement indicator. In Grunwell, P., editor, *British Studies in Applied Linguistics, Volume 3: Applied Linguistics in society*. London: Centre for Information in Language Teaching and Research.

Meara, P., & Jones, G. (1990). Eurocentres vocabulary size test 10KA. *Zurich: Eurocentres Learning Service*.

Mellow, J. D. (2002). Towards principled eclecticism in language teaching: The two-dimensional model and the centering principle. *TESL-EJ*, 5(4), 1-1.

Ming-Tzu, K. W., & Nation, P. (2004). Word meaning in academic English: Homography in the academic word list. *Applied Linguistics*, 25(3), 291-314.

Mitchell, R., & Myles, F. (2004). *Second Language Learning Theories*. Arnold Publishers.

Mondria, J. A., & Wiersma, B. (2004). Receptive, productive, and receptive+ productive L2 vocabulary learning: What difference does it make?, 79-100. In P. Bogaards & B. Laufer (Eds.). *Vocabulary in a second language: Selection, acquisition, and testing*. John Benjamins Publishing.

Morris, L., & Cobb, T. (2004). Vocabulary profiles as predictors of the academic performance of Teaching English as a Second Language trainees. *System*, 32(1), 75-87.

Mumtaz, S. (2000). Factors affecting teachers' use of information and communications technology: a review of the literature. *Journal of Information Technology for Teacher Education*, 9(3), 319-342.

Murphy, J., & Kandil, M. (2004). Word-level stress patterns in the academic word list. *System*, 32(1), 61-74.

Nagy, W. E., & Herman, P. A. (1987). Breadth and depth of vocabulary knowledge: Implications for acquisition and instruction. M. G. McKeown and M. E. Curtis (Eds.). *The nature of vocabulary acquisition*. Hillsdale, NJ, England: Lawrence Erlbaum Associates, Inc.

Nagy, W., & Townsend, D. (2012). Words as tools: Learning academic vocabulary as language acquisition. *Reading Research Quarterly*, 47(1), 91-108.

Naiman, N., Fröhlich, M., Stern, H., Todesco, A. (1978). The Good Language Learner. *Research in Education Series No. 7*. The Ontario Institute for Studies in Education, Toronto.

Nakamura, J., & Csikszentmihalyi, M. (2002). The concept of flow. *Handbook of Positive Psychology*, 89-105.

Nakata, T. (2011). Computer-assisted second language vocabulary learning in a paired-associate paradigm: a critical investigation of flashcard software. *Computer Assisted Language Learning*, 24(1), 17-38.

Nassaji, H., & Hu, H. C. M. (2012). The relationship between task-induced involvement load and learning new words from context. *International Review of Applied Linguistics in Language Teaching*, 50(1), 69-86.

Nation, I. S. P. (1990). *Teaching and learning vocabulary*. Boston: Heinle & Heinle.

Nation, I. S. P. (1993). Vocabulary size, growth, and use. In R. Schreuder & B. Weltens (Eds.). *The bilingual lexicon (Vol. 6)*. John Benjamins Publishing.

Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge: Cambridge University Press.

Neville, D. (2009). In the classroom: Digital game-based learning in second language acquisition. *The Language Educator*, 4(6), 37-41.

Neville, D. O., Shelton, B. E., & McInnis, B. (2009). Cybertext redux: Using digital game-based learning to teach L2 vocabulary, reading, and culture. *Computer Assisted Language Learning*, 22(5), 409-424.

Nissen, H. B., & Henriksen, B. (2006). Word class influence on word association test results1. *International Journal of Applied Linguistics*, 16(3), 389-408.

Noddings, N. (1995). *Philosophy of education (Vol. 190)*. Boulder, CO: Westview Press.

Norris, C., Sullivan, T., Poirot, J., & Soloway, E. (2003). No access, no use, no impact: Snapshot surveys of educational technology in K-12. *Journal of Research on Technology in Education*, 36(1), 15-28.

O'Malley, J. M., & Chamot, A. U. (1990). *Learning strategies in second language acquisition*. Cambridge University Press.

Oakley, A. (1999). Paradigm wars: some thoughts on a personal and public trajectory. *International Journal of Social Research Methodology*, 2(3), 247-254.

Olssen, M. (2004). The school as the microscope of conduction: doing Foucauldian research in education. In *Poststructuralism, philosophy, pedagogy*, 57-84.

Paribakht, T. S. (2005). The Influence of First Language Lexicalization on Second Language Lexical Inferencing: A Study of Farsi-Speaking Learners of English as a Foreign Language. *Language Learning*, 55(4), 701-748.

Paribakht, T. S., & Wesche, M. B. (1993). Reading comprehension and second language development in a comprehension-based ESL program. *TESL Canada Journal*, 11(1), 9-29.

Park, S., Lim, J., & Gentry, V. (2009, March). Lernen durch Lehren (LdL): Promoting pre-service teachers' instructional multimedia design skills and motivation using multi-level LdL approaches. In *Society for Information Technology & Teacher Education International Conference* (Vol. 2009, No. 1, pp. 1058-1064).

Patall, E. A., Cooper, H., & Robinson, J. C. (2008). The effects of choice on intrinsic motivation and related outcomes: a meta-analysis of research findings. *Psychological Bulletin*, 134(2), 270.

Patton, M. Q. (2002). *Qualitative evaluation and research methods (3rd ed.)*. Thousand Oaks, CA: SAGE.

Pavlov, I. P. (1927). *Conditioned reflexes*. DoverPublications.

Peters, M. (2004). Lyotard, Marxism and Education: The Problem of Knowledge Capitalism. *In Poststructuralism, philosophy, pedagogy*, 43-56.

Phillips, D. C. (2003). Theories of Teaching and Learning. *A Companion to the Philosophy of Education*, 232-245.

Piaget, J. (1959). *The language and thought of the child (Vol. 5)*. Psychology Press.

Plato. In Cooper, J. M. and Hutchinson, D. S. (1997). *Plato: Complete Works*. Indianapolis, Cambridge: Hackett Publishing Company.

Prensky, M. (2001). Digital natives, digital immigrants part 1. *On the horizon*, 9(5), 1-6.

Prensky, M. (2003). Digital game-based learning. *Computers in Entertainment (CIE)*, 1(1), 21-21.

Pressley, M., Levin, J. R., Kuiper, N. A., Bryant, S. L., & Michener, S. (1982). Mnemonic versus nonmnemonic vocabulary-learning strategies: Additional comparisons. *Journal of Educational Psychology*, 74(5), 693.

Ranalli, J. (2008). Learning English with The Sims: exploiting authentic computer simulation games for L2 learning. *Computer Assisted Language Learning*, 21(5), 441-455.

Ranalli, J. (2013). Designing Online Strategy Instruction for Integrated Vocabulary Depth of Knowledge and Web-Based Dictionary Skills. *CALICO Journal*, 30(1), 16-43.

Rankin, Y., Gold, R., & Gooch, B. (2006). 3D role-playing games as language learning tools. In *Proceedings of EuroGraphics* (Vol. 25, No. 3, pp. 211-225).

Ratnesar, N. & Macenzie, J. (2007). The Quantitative Qualitative Distinction and the Null Hypothesis Significance Testing Procedure. In Bridges, D., & Smith, R. (Eds.). *Philosophy, methodology and educational research*. London: Blackwell.

Razmjoo, S. A., Ranjbar, H., & Hoomanfard, M. H. (2013). On the Familiarity of Iranian EFL Teachers and Learners with Post-method, and its Realization. *International Journal of Language Learning and Applied Linguistics World*, 6.

Read, J. (1993). The development of a new measure of L2 vocabulary knowledge. *Language Testing*, 10(3), 355-371.

Read, J. (2004). Plumbing the depths: How should the construct of vocabulary knowledge be defined. In Bogaards, P., & Laufer, B. (Eds.). *Vocabulary in a second language: Selection, acquisition, and testing (Vol. 10)*. John Benjamins Publishing.

Read, J. (2013). Assessment of Vocabulary. *The Encyclopedia of Applied Linguistics*.

Reeve, J., Nix, G., & Hamm, D. (2003). Testing models of the experience of self-determination in intrinsic motivation and the conundrum of choice. *Journal of Educational Psychology*, 95(2), 375.

Richards, J. C. (1976). The role of vocabulary teaching. *TESOL Quarterly*, 77-89.

Richards, J. C., & Rodgers, T. (2002). *Approaches and Methods in Language Teaching*. Cambridge, England: Cambridge University Press.

Robinson, D. R., & Steers-Wentzell, K. L. (2005). Peer and cross-age tutoring in math: Outcomes and their design implications. *Educational Psychology Review*, 17(4), 327-362.

Rodgers, C. R. (2002). Voices inside schools. *Harvard Educational Review*, 72(2), 230-254.

Rogoff, B. (2003). *The cultural nature of human development*. Oxford University Press.

Rohrbeck, C. A., Ginsberg-Block, M. D., Fantuzzo, J. W., & Miller, T. R. (2003). Peer-assisted learning interventions with elementary school students: A meta-analytic review. *Journal of Educational Psychology*, 95(2), 240-257.

Romá, M. (2009). Learning by teaching in engineering. A step beyond learning by doing. *Technology, Education and Development, A. Lazinika and C. Calafate, Eds. Croatia: InTech*, 337-394.

Roscoe, R. D., & Chi, M. T. (2007). Understanding tutor learning: Knowledge-building and knowledge-telling in peer tutors' explanations and questions. *Review of Educational Research*, 77(4), 534-574.

Rosman, F., Norlidah Alias, S. S., Kenayathullah, H. B., Zakaria, A. R., & Darusalam, G. (2013). Potential of Video Games in Learning Bahasa Melayu Vocabulary among International University Students in Malaysia: A Meta Analysis of Selected Journals. *TOJET*, 12(4).

Rott, S. (1999). The Effect of Exposure Frequency on Intermediate Language Learners' Incidental Vocabulary Acquisition and Retention through Reading. *Studies in Second Language Acquisition*, 21(4), 589-619.

Ryan, M. (1995). Human resource management and the politics of knowledge: linking the essential knowledge base of the organization to strategic decision making. *Leadership & Organization Development Journal*, 16(5), 3-10.

Ryan, R. M., & Brown, K. W. (2005). Legislating competence: High-stakes testing policies and their relations with psychological theories and research. *Handbook of Competence and Motivation*, 354-372. New York: Guilford.

Ryan, R. M., & Deci, E. L. (2000a). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68.

Ryan, R. M., & Deci, E. L. (2000b). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25(1), 54-67.

Ryan, R. M., & Deci, E. L. (2009). Promoting Self-Determined School Engagement, 171-195. In K. Wentzel & A. Wigfield (Eds.). *Handbook of Motivation at School*. Routledge.

Ryan, R. M., Mims, V., & Koestner, R. (1983). Relation of reward contingency and interpersonal context to intrinsic motivation: A review and test using cognitive evaluation theory. *Journal of Personality and Social Psychology*, 45(4), 736.

Ryan, R., & Lynch, M. (2003). Motivation and classroom management, 260-271. In R. Curren (Ed.). (2008). *A Companion to the Philosophy of Education*. John Wiley & Sons.

Sahrir, M. S., & Yusri, G. (2012). Online vocabulary games for teaching and learning Arabic. *GEMA: Online Journal of Language Studies*, 12(3), 961-977.

Salkind, N. J., & Rasmussen, K. (Eds.). (2008). *Encyclopedia of Educational Psychology (Vol. 1-2)*. Sage Publications.

Sawicki, J. (1991). *Disciplining Foucault: Feminism, power and the body*. Psychology Press. New York : Routledge.

Schaffner, E., Schiefele, U., & Ulferts, H. (2013). Reading Amount as a Mediator of the Effects of Intrinsic and Extrinsic Reading Motivation on Reading Comprehension. *Reading Research Quarterly*, 48(4), 369-385.

Schank, R. C., Berman, T. R., & Macpherson, K. A. (1983). Learning by doing. *Instructional-design theories and models*, 2, 161-181.

Schlager, M. S., & Fusco, J. (2003). Teacher professional development, technology, and communities of practice: Are we putting the cart before the horse?. *The Information Society*, 19(3), 203-220.

Schmitt, N. (1997). Vocabulary learning strategies, 199-227. In Schmitt, N., & McCarthy, M. (Eds.). (2001). *Vocabulary: Description, Acquisition and Pedagogy*. Cambridge: Cambridge university press.

Schmitt, N. (1999). The relationship between TOEFL vocabulary items and meaning, association, collocation and word-class knowledge. *Language Testing*, 16(2), 189-216.

Schmitt, N. (2000). *Vocabulary in Language Teaching*. Cambridge: Cambridge University Press.

Schmitt, N., & Meara, P. (1997). Researching vocabulary through a word knowledge framework. *Studies in Second Language Acquisition*, 19(1), 17-36.

Schmitt, N., Schmitt, D., & Clapham, C. (2001). Developing and exploring the behaviour of two new versions of the Vocabulary Levels Test. *Language Testing*, 18(1), 55-88.

Schneider, V. I., Healy, A. F., & Bourne, L. E. (2002). What is learned under difficult conditions is hard to forget: Contextual interference effects in foreign vocabulary acquisition, retention, and transfer. *Journal of Memory and Language*, 46(2), 419-440.

Schumann, J. H. (1978). *The pidginization process: A model for second language acquisition*. Rowley, Mass.: Newbury House Publishers.

Schumann, J. H. (1990). Extending the scope of the acculturation/pidginization model to include cognition. *TESOL Quarterly*, 24(4), 667-684.

Schunk, D. H. (2012). *Learning Theories: An Educational Perspective*. Pearson.

Schunk, D. H., & Pajares, F. (2009). Self-Efficacy Theory, 35-53. In K. Wentzel & A. Wigfield (Eds.). *Handbook of Motivation at School*. Routledge.

Schunk, D. H., Pintrich, P. R., & Meece, J. L. (2008). *Motivation in Education: Theory, Research, and Applications*. Pearson.

Segalowitz, N. (2001). On the evolving connections between psychology and linguistics. *Annual Review of Applied Linguistics*, 21(1), 3-22.

Shamsudin, S., Sadoughvanini, S., & Zaid, Y. H. (2013). Iranian EFL Learners' Collocational Errors in Speaking Skill. *Procedia-Social and Behavioral Sciences*, 70, 1295-1302.

Shin, D., & Nation, P. (2008). Beyond single words: the most frequent collocations in spoken English. *ELT Journal*, 62(4), 339-348.

Skehan, P. (1989). *Individual differences in second-language learning*. London: Edward Arnold.

Skinner, B. F. (1957). *Verbal behavior*. New York: Appleton-Century-Crofts.

Skinner, J. (1994). Learning by Teaching, in Zielsprache Englishisch, 2/94, 38-39. Retrieved in 13th November, 2013 http://www.ld.de/material/aufsatz/skinner.htm

Smith, G. G., Li, M., Drobisz, J., Park, H. R., Kim, D., & Smith, S. D. (2013). Play games or study? Computer games in eBooks to learn English vocabulary. *Computers and Education*, 69, 274-286.

Stahl, S. A., & Fairbanks, M. M. (1986). The effects of vocabulary instruction: A model-based meta-analysis. *Review of Educational Research*, 56(1), 72-110.

Sternberg, R. J. (1989). *The triarchic mind: A new theory of human intelligence*. New York: Penguin Books.

Sternberg, R. J. (1999a). *Thinking styles*. Cambridge University Press.

Sternberg, R. J. (Ed.). (1999b). *Handbook of creativity*. Cambridge University Press.

Suzuki, C., Fukushima, S., Kinjo, Y., & Yoshihara, S. (2012). *Research results of corpus studies on language use in academic writing by EFL students compared with native speakers*. La Investigación y la Enseñanza Aplicadas a las Lenguas de Especialidad ya la Tecnolog¡ a, 139-148.

Swain, M. (2005). The output hypothesis: Theory and research. *Handbook of Research in Second Language Teaching and Learning*, 1, 471-483.

Tacke, O. (2011). LdL in den Wirtschaftswissenschaften–Eindrücke eines Einsteigers. *Lernen Durch Lehren im Fokus*, 107.

Tapscott, D. 1998. *Growing up digital: The rise of the Net Generation*. New York: McGraw-Hill.

Teddlie, C., & Tashakkori, A. (2011). Mixed methods research. *The Sage Handbook of Qualitative Research*, 285.

Teichman, J., & Evans, K. C. (1999). *Philosophy: A beginner's guide*.

Teo, T., Lee, C. B., & Chai, C. S. (2008). Understanding pre-service teachers' computer attitudes: applying and extending the technology acceptance model. *Journal of Computer Assisted Learning*, 24(2), 128-143.

Thornbury, S. (2005). *How to Teach Vocabulary*. Pearson Education Malaysia.

Tomlinson, C. A. (1999). *The Differentiated Classroom: Responding to the Needs of All Learners*. ASCD.

Tsai, Y. M., Kunter, M., Lüdtke, O., Trautwein, U., & Ryan, R. M. (2008). What makes lessons interesting? The role of situational and individual factors in three school subjects. *Journal of Educational Psychology*, 100(2), 460.

Ulmer, G. L. (1985). *Applied grammatology: post (e)-pedagogy from Jacques Derrida to Joseph Beuys*. Baltimore: Johns Hopkins University Press.

Ur, P. (1996). *A Course in Language Teaching: Practice and Theory*. Cambridge: Cambridge University Press.

Ur, P. (2013). Language-teaching method revisited. *ELT Journal*, 67(4), 468-474.

Uzun, L. (2011). A University Level Linguistics Course Classroom Research: Vocabulary Retention and the Use of L2 and L1. *International Journal of Social Sciences*, 1(4), 366-379.

Uzun, L. (2012a). The Internet and computer enhanced foreign language learning and intercultural communication. *World Journal on Educational Technology*, 4(2), 99-112.

Uzun, L. (2012b). What is your educational philosophy? Modern and postmodern approachesto foreign language education. *Studies in Second Language Learning and Teaching*, (3), 333-348.

Uzun, L. (2013a). Promoting vocabulary learning through vocabulary notebooks: Teaching and learning strategies and gender. *Journal of Academic Language and Learning*, 7(1), A1-A13.

Uzun, L., & Salihoglu, U. M. (2009). English-Turkish Cognates and False Cognates: Compiling a Corpus and Testing How They are Translated by Computer Programs. *Poznań Studies in Contemporary Linguistics*, 45(4), 569-593.

Uzun, L., Cetinavcı, U., Korkmaz, S., Salihoğlu, U.M. (2013b). Developing and Applying a Foreign Language Vocabulary Learning and Practicing Game: the Effect of VocaWord. *Digital Culture and Education*, 5(1), 48-70.

Uzun, L., Ekin, M., & Kartal, E. (2013c). The Opinions and Attitudes of the Foreign Language Learners and Teachers Related to the Traditional and Digital Games: Age and Gender Differences. *International Journal of Game-Based Learning (IJGBL)*, 3(2), 91-111.

Van Hell, J. G., & Mahn, A. C. (1997). Keyword mnemonics versus rote rehearsal: Learning concrete and abstract foreign words by experienced and inexperienced learners. *Language Learning*, 47(3), 507-546.

Van Schaik, P., Martin, S., & Vallance, M. (2012). Measuring flow experience in an immersive virtual environment for collaborative learning. *Journal of Computer Assisted Learning*, 28(4), 350-365.

Vasillopulos, C. (2011). The Natural Rights Basis of Aristotelian Education. *Studies in Philosophy and Education*, 30(1), 19-36.

Vongpumivitch, V., Huang, J. Y., & Chang, Y. C. (2009). Frequency analysis of the words in the Academic Word List (AWL) and non-AWL content words in applied linguistics research papers. *English for Specific Purposes*, 28(1), 33-41.

Vygotsky, L. S. (1962). *Thought and Language*. MIT Press.

Wagster, J., Tan, J., Wu, Y., Biswas, G., & Schwartz, D. (2007). Do learning by teaching environments with metacognitive support help students develop better learning behaviors. In *The twenty-ninth Annual Meeting of the Cognitive Science Society, Nashville, Tennessee* (pp. 695-700).

Waldvogel, D. A. (2013). The Relationships between Vocabulary Learning Strategies and Vocabulary Size among Adult Spanish Foreign Language Learners. *Journal of Language Teaching and Research*, 4(2), 209-219.

Walters, J., & Bozkurt, N. (2009). The effect of keeping vocabulary notebooks on vocabulary acquisition. *Language Teaching Research*, 13(4), 403-423.

Webb, S. (2005). Receptive and productive vocabulary learning. *Studies in Second Language Acquisition*, 27, 33-52.

Webb, S. (2008). Receptive and productive vocabulary sizes of L2 learners. *Studies in Second Language Acquisition*, 30(1), 79.

Weiner B. (1992). *Human Motivation: Metaphors, Theories, and Research*. Newbury Park, CA: Sage.

Wells, L. D. (2007). *Vocabulary mastery 1: Using and learning the academic word list*. Ann Arbor, MI: University of Michigan Press.

Wentzel, K., & Wigfield, A. (Eds.). (2009). *Handbook of Motivation at School*. Routledge.

Wesche, M., & Paribakht, T. S. (1996). Assessing Second Language Vocabulary Knowledge: Depth Versus Breadth. *Canadian Modern Language Review*, 53(1), 13-40.

West, M. P. (1953). *A general service list of English words: with semantic frequencies and a supplementary word-list for the writing of popular science and technology*. Longmans, Green.

Williams, M. & Burden, R. (1997). *Psychology for Language Teacher*. Cambridge: Cambridge university Press.

Wilson, J. (2003). Perspectives on the Philosophy of Education. *Oxford Review of Education*, 29(2), 279–283.

Winch, P. (1958). *The Idea of a Social Science: And its Relation to Philosophy*. New York: Humanities Press.

Wong, L. H., & Looi, C. K. (2010). Vocabulary learning by mobile-assisted authentic content creation and social meaning-making: two case studies. *Journal of Computer Assisted Learning*, 26(5), 421-433.

Wormeli, R. (2006). *Fair Isn't Always Equal: Assessing & Grading in the Differentiated Classroom*. Stenhouse Publishers.

Xue, G., & Nation, I. S. P. (1984). A university word list. *Language Learning and Communication*, 3(2), 215-229.

Yanguas, I. (2012). Task-Based Oral Computer-Mediated Communication and L2 Vocabulary Acquisition. *CALICO Journal*, 29(3), 507-531.

Yip, F.W.M., & Kwan, A.C.M. (2006). Online Vocabulary Games as a Tool for Teaching and Learning English Vocabulary. *Educational Media International*, 43(3), 233-249.

Young, M. F., Slota, S., Cutter, A. B., Jalette, G., Mullin, G., Lai, B., … & Yukhymenko, M. (2012). Our Princess Is in Another Castle A Review of Trends in Serious Gaming for Education. *Review of Educational Research*, 82(1), 61-89.

Yu, X., & Klein, S. (2008). Enhancing student learning using concept mapping and learning by teaching environment. *Journal of Computing Sciences in Colleges*, 23(4), 271-278.

Yücel, E. (2011). Lernen durch Lehren: Eine handlungsorientierte Verfahrensweise für den DaF-Unterricht [Öğreterek öğrenme: Yabanvı dil Almanca dersi için bir eylem modeli]. *Contemporary Online Language Education Journal*, 2(1), 22-32.

Zack, N. (2010). *The Handy Philosophy Answer Book*. Detroit: Visible Ink Press.

Zareva, A. (2005). Models of lexical knowledge assessment of second language learners of English at higher levels of language proficiency. *System*, 33(4), 547-562.

Zhang, D., & Koda, K. (2012). Contribution of morphological awareness and lexical inferencing ability to L2 vocabulary knowledge and reading comprehension among advanced EFL learners: testing direct and indirect effects. *Reading and Writing*, 25(5), 1195-1216.

Zheng, Y. (2012). Exploring long-term productive vocabulary development in an EFL context: The role of motivation. *System*, 40(1), 104-119.

Zheng, Y. Y. (2009). Exploring Chinese EFL learners' receptive and productive vocabulary knowledge: implications for EFL vocabulary teaching. *The Journal of Asia TEFL*, 6, 163-188.

Zimmerman, C. B. (2000). Historical trends in second language vocabulary instruction, 5-19. In J. Coady & T. Huckin (Eds.). *Second language vocabulary acquisition: A Rationale for Pedagogy*. Cambridge University Press.

Zou, B., & Peng, W. (2013). A corpus-based study of the use of vocabulary in academic writing. *Glasgow, 10-13 July 2013 Papers*, 385.

Zyzik, E., & Azevedo, C. (2009). Word class distinctions in second language acquisition. *Studies in Second Language Acquisition*, 31, 1-29.

Спандерашвили, Д. В., & Спандерашвили, А. С. [Spanderashvili, D.V. & Spanderashvili, A.S.] (2009). Роль Сетевых Коммуникаций в Мобилизации Коллективных Ресурсов на Примере Метода LDL (Lernen Durch Lehren–Учение Через Обучение). *Прикаспийский Журнал: управление и высокие технологии*, 1(5), 72-77.

APPENDICES

APPENDIX 1

(The total elicited headwords from the AWL, sorted according to word class and sub-lists.)

Sublist 1 (16 words)

Noun	constitute	interpret	respond
issue	define	involve	vary
Verb	derive	legislate	*Adjective*
assess	establish	proceed	evident
consist	identify	require	

Sublist 2 (23 words)

Noun	acquire	invest	secure
aspect	administrate	maintain	seek
feature	conclude	obtain	*Adjective*
item	consume	participate	consequent
resource	equate	perceive	distinct
tradition	evaluate	reside	
Verb	injure	restrict	

Sublist 3 (20 words)

Noun	*Verb*	deduce	register
circumstance	compensate	exclude	rely
comment	constrain	immigrate	remove
component	contribute	imply	*Adjective*
fund	convene	justify	valid
outcome	correspond	publish	

Sublist 4 (17 words)

Noun	attribute	implement	resolve
attitude	commit	implicate	retain
dimension	confer	investigate	undertake
goal	emerge	occupy	*Adjective*
Verb	grant	predict	approximate

Sublist 5 (13 words)

Noun	adjust	expand	sustain
compound	amend	expose	*Adjective*
entity	enforce	reject	discrete
Verb	evolve	substitute	stable

Sublist 6 (24 words)

Noun	attach	instruct	utilise
fee	cite	migrate	*Adjective*
subsidy	discriminate	precede	diverse
Verb	enhance	presume	flexible
acknowledge	incorporate	recover	ignorant
allocate	inhibit	reveal	intelligent
assign	initiate	underlie	

Sublist 7 (18 words)

Noun	confirm	innovate	*Adjective*
Adult	convert	intervene	sole
decade	differentiate	prohibit	ultimate
globe	dispose	quote	
successor	equip	submit	
Verb	infer	transmit	

Sublist 8 (23 words)

Noun	appreciate	fluctuate	inevitable
guideline	clarify	highlight	intense
practitioner	conform	induce	predominant
Verb	contradict	inspect	tense
accompany	deviate	reinforce	virtual
accumulate	displace	*Adjective*	
append	exploit	eventual	

Sublist 9 (23 words)

Noun	cease	erode	unify
insight	commence	found	violate
Verb	confine	mediate	*Adjective*
accommodate	converse	relax	coherent
anticipate	devote	restrain	compatible
assure	diminish	supplement	
attain	distort	suspend	

Sublist 10 (11 words)

Noun	compile	incline	*Adjective*
colleague	conceive	invoke	reluctance
Verb	convince	persist	
assemble	encounter	pose	

APPENDIX 2

(*The elicited words after the pre-tests, sorted according to tiers.*)

Tier 1 (26 words)

allocate	constitute	equate	invoke
amend	constrain	erode	legislate
append	convene	fluctuate	precede
compensate	deviate	grant	reside
compile	discrete	implicate	subsidy
compound	distort	incline	
confer	entity	intervene	

Tier 2 (23 words)

assess	contradict	innovate	practitioner
cease	deduce	implement	restrain
coherent	evolve	incorporate	retain
commence	exclude	inspect	unify
component	fund	interpret	utilise
conceive	induce	mediate	

Tier 3 (24 words)

accommodate	inhibit
accumulate	insight
assure	outcome
attain	pose
attribute	presume
cite	proceed
compatible	quote
confine	reluctance
dispose	restrict
diverse	sole
equip	substitute
exploit	
guideline	

APPENDIX 3

(*Pre-tests of the study (PAVK& RAVK), Pre-test of Productive Academic Vocabulary Knowledge & Pre-test of Receptive Academic Vocabulary Knowledge*)

PAVK

Please complete the words to form a meaningful sentence.

- The technique is being tried in classrooms to **ass** [____] what effects it may have.
- The audience will **cons** [____] mainly of teenagers.
- Bananas and coffee together **const** [____] almost 38% of Costa Rica's export earnings.
- The tutor will clearly **def** [____] all the tasks.
- They are going to **dist** [____] the clothes and blankets among the refugees.
- Our goal is to **est** [____] a new research group in our department.
- It soon became **evid** [____] that she was seriously ill.
- He was too far away to be able to **id** [____] faces.
- My grandmother attempted to **int** [____] the meaning of dreams.
- These changes will **inv** [____] everyone on the staff.
- Abortion is a highly controversial **iss** [____].
- Only Parliament has the power to **legi** [____] on constitutional matters.
- Only one third of African children **proc** [____] from elementary to secondary education.
- Most house plants **req** [____] regular watering.
- Colds do not **resp** [____] to antibiotics.
- Test scores **va** [____] from school to school.

- The man hoped to **acq** [____] valuable works of art as cheaply as possible.
- They are looking for someone to **ad** [____] the new department.
- Dealing with people is the most important **asp** [____] of my work.
- The report is to **conc** [____] that the school should be closed immediately.
- The rise in inflation and **conse** [____] fall in demand has corrupted the economy.
- A smaller vehicle will **cons** [____] less fuel.
- The learning needs of the two groups are quite **dist** [____] from each other.
- Most people **equ** [____] wealth with success.
- You should be able to **eval** [____] your own work.
- Air bags are a standard **fea** [____] in most new cars.
- Pay attention not to **inj** [____] yourself while playing football.
- The factory plans to **inv** [____] in new computers.
- We went on to the next **it** [____] on the agenda.
- Critics **main** [____] that these reforms will lead to a decline in educational standards.
- You will need to **obt** [____] permission from the principal.
- Everyone in the class is expected to **part** [____] actively in these discussions.
- Cats are not able to **perc** [____] colour.
- They **resi** [____] in a small and beautiful village by the sea.
- A country's greatest national **reso** [____] is the minds of its children.
- The new law will **rest** [____] the sale of guns.
- Soldiers were sent to **sec** [____] the area.
- Do you think the President will **see** [____] re-election?
- The university has a long **trad** [____] of supporting the arts.

- We need to help poor people, especially when they are in that kind of **circ**_____.
- The speech received much **comm**_____ in the press.
- Her intelligence can **compe**_____ for her lack of experience.
- Exercise is the key **comp**_____ of a healthy lifestyle.
- Financial factors should not **cons**_____ doctors from doing their best for patients.
- The volunteers **cont**_____ their own time to the project.
- We need to **conv**_____ a special meeting to deal with the conflict between students and teachers.
- The Amerikan GRE and GMAT exams roughly **corres**_____ to Turkish ALES exam.
- It is important to learn a strategy which will help you to **ded**_____ the meaning of new vocabulary from context.
- You will need to **exc**_____ the bacon from the menu as guests do not eat pork meat.
- We need to allocate extra **fu**_____ for this project.
- His father and mother had to **imm**_____ when he was twelve.
- Excuse me! I had not meant to **im**_____ that you were lying.
- I don't have to **jus**_____ myself to you or anyone else.
- We are quite pleased with the **out**_____ of the negotiations.
- University teachers must **pub**_____ regularly to gain promotion.
- You need to **reg**_____ to access this website.
- Many people now **rel**_____ on the Internet for news.
- **Rem**_____ the old wallpaper and paint the walls.
- Your return ticket is **va**_____ for three months.

- The **approx**_____ time of the arrival of the plane is 7 o'clock.
- As soon as they found out I was a doctor their whole **att**_____ changed.
- One should not **att**_____ human motives to animals.
- Women **com**_____ fewer crimes than men.
- I will need to **conf**_____ with my supervisor before I can allow that.
- His coaching has added another **dim**_____ to my game.
- The flowers **em**_____ in the spring.
- His only **go**_____ was to set up his own business.
- I would love to be able to **gran**_____ her wish.
- We have decided to **imple**_____ the instructor's recommendations in full.
- The politicians are expected not to **impli**_____ in the judicial matters.
- The study was intended to **inve**_____ the impact of technology on education.
- Football will **occ**_____ most of my leisure time in summer during the tournament.
- It is difficult to **pre**_____ what the long-term effects of this trend will be.
- He was desperate for money to **reso**_____ his financial problems.
- The state wants to **ret**_____ control of food imports.
- You have to **und**_____ to pay the money back in six months.

- It took a few seconds for her eyes to **adj** [____] to the darkness.
- They should **ame** [____] the law to include women.
- Sulphur dioxide is a **comp** [____] of sulphur and oxygen.
- The exam was marked with **disc** [____] points for each section.
- Governments make laws and the police **enf** [____] them.
- Our planet can be viewed as a living **ent** [____] that we are slowly poisoning through pollution.
- The group is going to **evo** [____] into a political party step by step.
- The hotel wants to **exp** [____] its business by adding a swimming pool.
- If you **exp** [____] your skin to sunlight too much, it will turn brownish.
- She should **rej** [____] your defective opinions and attempts.
- A wide base will make the structure much more **sta** [____].
- The coach has to find a **sub** [____] for the goalkeeper.
- She found it difficult to **sus** [____] the children's interest.

- The government must **ack** [____] what is happening and do something about it.
- You should **all** [____] the same amount of time to each question.
- Please **ass** [____] each student a partner during this activity.
- **Att** [____] a recent photograph to your application form.
- You can **ci** [____] this work in relation to educational technologies.
- Newborn babies can **discr** [____] between a man's and a woman's voice.
- These are subjects that are as **div** [____] as pop music and archaeology.
- Good lighting will **enh** [____] any room.
- The health club charges an annual membership **f** [____].
- The government needs a more **fle** [____] approach to education.
- Political historians are often rather **ign** [____] of economics.
- We need to **inco** [____] many environmentally-friendly features into the design of the building.
- An unhappy family life may **inh** [____] children's learning.
- They have decided to **init** [____] a debate on the relations between the teachers and students.
- You need to **ins** [____] the students to open their books.
- Our dog is very **int** [____] and seems to understand when we talk to it.
- Most people who **mig** [____] from villages to big cities do so for economic reasons.
- A short speech from the chairman will **prec** [____] the dinner in the meeting.
- Each of you will make a speech, I **pres** [____]?
- After a few days of fever, she began to **rec** [____].
- We developed a test that can **reve** [____] a teacher's hidden skills.
- Farmers receive a **subsi** [____] from the government to keep the price of wheat down for the consumers.
- Aggression and macho attitudes **unde** [____] a lot of the violence in the sports.
- We must consider how best to **uti** [____] what resources we have.

- One becomes an **adu**_____ by law at the age of 18 in this country.
- The new results **conf**_____ what most of us knew already.
- Scientists have already found a way to **conv**_____ light energy to heat energy.
- Technology is changing so fast that a computer bought a **dec**_____ ago for thousands of dollars is totally worthless today.
- It's important to **dif**_____ between fact and opinion.
- Nuclear power plants produce a lot of dangerous waste and they need to **disp**_____ of it continually.
- We **eq**_____ students with the skills they will need once they leave university.
- The company exports their goods all over the **gl**_____.
- From the evidence we can **inf**_____ that the victim knew her killer.
- The company has successfully started to **inn**_____ new products and services.
- The army will have to **interv**_____ to prevent further fighting.
- They need to **proh**_____ smoking inside the factory.
- She uses brackets to **qu**_____ passages from the holy texts.
- The story was published with the **so**_____ purpose of selling newspapers.
- I have to **sub**_____ the application by Monday.
- When the king dies, the prince will be his **suc**_____.
- Humans use language to **transm**_____ thoughts, feelings, and needs to others.
- The **ult**_____ outcome of the experiment cannot be predicted.

- Wherever her husband went, she would **accomp**_____ him.
- It is unjust that a privileged few should continue to **accu**_____ wealth.
- She was asked to **appe**_____ her signature to the document.
- I **appre**_____ your concern, but honestly, I'm fine.
- The report aims to **clar**_____ how these conclusions were reached.
- All new buildings must **confo**_____ with the regional development plan.
- The witness statements **cont**_____ each other and the facts remain unclear.
- The plane had to **dev**_____ from its normal flight path.
- We need to **displ**_____ petrol by electricity in our cars.
- The Spanish team was the **even**_____ winners of the tournament.
- Do you believe that rich people usually **expl**_____ poor people?
- Insect populations **fluc**_____ wildly from year to year.
- The doctor gave me a basic **guidel**_____ for setting up a diet and losing weight.
- Use the mouse to **high**_____ the name of the document you want to print.
- Nothing would **ind**_____ me to vote for that person again.
- Disease was an **inev**_____ consequence of poor living conditions.
- I got out of the car to **insp**_____ the damage.
- The pain was so **inte**_____ I couldn't sleep.
- The hospital needs a **pract**_____ of alternative medicine who will help the patients.
- In this painting, the **predo**_____ colour is black.
- Many films **rein**_____ the idea that women should be pretty and dumb.
- Is anything wrong? You look a little **tens**_____.
- The website allows you to take a **virt**_____ tour of the art gallery.

- The island was used to **acco** [____] child refugees.
- The schedule isn't final, but we don't **ant** [____] many changes.
- I can **ass** [____] you that the document is genuine.
- More women should try hard to **att** [____] positions of power.
- Someone once said that a friend is one who believes in you when you **cea** [____] to believe in yourself.
- The three years of the course are planned as a **coh** [____] whole.
- The ceremony will **comm** [____] in 15 minutes.
- The new software is not **comp** [____] with the hardware.
- He did not **conf** [____] himself to writing only one type of poem.
- She enjoyed the chance to **conve** [____] with a native speaker of English.
- He is willing to **devo** [____] all of his energy to the project.
- These drugs **dimi** [____] blood flow to the brain.
- Tall buildings can **disto** [____] radio signals.
- Plant some trees on the cliffs if you don't want the soil to constantly **er** [____].
- Every effort should be made to **fou** [____] another university in the city.
- The research provides new **ins** [____] into the way we process language.
- Exercise may **medi** [____] the effects of a bad diet.
- My grandparents like to **rel** [____] by working in the garden.
- She could barely **rest** [____] herself from hitting him.
- You can **supple** [____] your regular salary by teaching in the evenings.
- They will **susp** [____] him from school for a week because of inappropriate action.
- Authorities should **uni** [____] philosophy and technology in education.
- If you **viol** [____] the peace in the country, you will be arrested.

- The enemies began to **assem** [____] an army.
- She discussed the idea with an old **coll** [____] of mine who we met at a conference.
- My mother has been using the Internet to **compi** [____] recipes from around the world.
- If my mind can **conc** [____] it, and my heart can believe it, I know I can achieve it.
- I've been trying to **conv** [____] her to come with me to the cinema.
- You can consult the instructor whenever you **enco** [____] a problem.
- I **incl** [____] to the opinion that this principle causes religious discrimination.
- The United Nations threatened to **inv** [____] economic punishment if the talks were broken off.
- She will **pers** [____] with her studies in spite of financial problems.
- Difficulties with the English language **pos** [____] serious problems to the academicians who want to go abroad.
- The authorities finally agreed, but with **relu** [____].

RAVK

Please match the definitions with the corresponding words.

happening at the end of a long period of time or after a lot of other things have happened — Choose... ⌄

steady and not likely to move or change — Choose... ⌄

a person, plan etc that can change or be changed easily to suit any new situation — Choose... ⌄

the only one — Choose... ⌄

to prevent something from growing or developing well — Choose... ⌄

to officially tell someone what to do — Choose... ⌄

to happen or exist before something or someone, or to come before something else in a series — Choose... ⌄

to start something such as an organization, company, school, or city, often by providing the necessary money — Choose... ⌄

to rest or do something that is enjoyable, especially after you have been working — Choose... ⌄

to change the appearance, sound, or shape of something so that it is strange or unclear — Choose... ⌄

to officially stop something from continuing, especially for a short time — Choose... ⌄

to make a book, list, record etc, using different pieces of information, music etc — Choose... ⌄

to disobey or do something against an official agreement, law, principle etc — Choose... ⌄

to consider that two things are similar or connected — Choose... ⌄

to get or gain something — Choose... ⌄

to complete something you have been doing, especially for a long time — Choose... ⌄

the conditions that affect a situation, action, event etc — Choose... ⌄

one of several parts that together make up a whole machine, system etc — Choose... ⌄

the final result of a meeting, discussion, war etc - used especially when no one knows what it will be until it actually happens — Choose... ⌄

to cause a particular physical condition — Choose... ▾

to take the place or position of something or someone — Choose... ▾

to keep changing and becoming higher and lower — Choose... ▾

to discuss something with other people, so that everyone can express their opinions and decide on something — Choose... ▾

to believe or say that a situation or event is caused by something — Choose... ▾

to give someone something or allow them to have something that they have asked for — Choose... ▾

to not allow something or someone to take part in something, or not allow them to enter a place — Choose... ▾

to be very similar to or the same as something else — Choose... ▾

to give money, help, ideas etc to something that a lot of other people are also involved in — Choose... ▾

to need something — Choose... ▾

to make a law about something — Choose... ▾

to explain the meaning of something — Choose... ▾

to take part in an activity or event — Choose... ▾

to make something continue in the same way or at the same standard as before — Choose... ▾

to hurt yourself or someone else, for example in an accident or an attack — Choose... ▾

to change something into a different form of thing, or to change something so that it can be used for a different purpose or in a different way — Choose... ▾

to form an opinion that something is probably true because of information that you have — Choose... ▾

to arrange things or put them in their places — Choose... ▾

more powerful, more common, or more easily noticed than others — Choose... ⌄

made, done, seen etc on the Internet or on a computer, rather than in the real world — Choose... ⌄

able to exist or be used together without causing problems — Choose... ⌄

to gradually increase in numbers or amount until there is a large quantity in one place — Choose... ⌄

to understand how good or useful someone or something is — Choose... ⌄

to behave in the way that most other people in your group or society behave — Choose... ⌄

to think that something is true, although you are not certain — Choose... ⌄

to make known something that was previously secret or unknown — Choose... ⌄

to use something for a particular purpose — Choose... ⌄

something such as a book, film, or picture used by teachers or students to provide information — Choose... ⌄

a part of something that you notice because it seems important, interesting, or typical — Choose... ⌄

a subject or problem that is often discussed or argued about, especially a social or political matter that affects the interests of a lot of people — Choose... ⌄

to disagree with something, especially by saying that the opposite is true — Choose... ⌄

to make something clearer or easier to understand — Choose... ⌄

to add something to a piece of writing — Choose... ⌄

to limit or control the size, amount, or range of something — Choose... ⌄

to try to achieve or get something — Choose... ⌄

to notice, see, or recognize something — Choose... ⌄

a belief, custom, or way of doing something that has existed for a long time, or these beliefs, customs etc in general | Choose... ⌄

an opinion that you express about someone or something | Choose... ⌄

one part of a situation, idea, plan etc that has many parts | Choose... ⌄

a single thing, especially one thing in a list, group, or set of things | Choose... ⌄

---

very different from each other | Choose... ⌄

a reason, argument etc that is based on what is reasonable or sensible | Choose... ⌄

happening as a result of a particular event or situation | Choose... ⌄

clearly separate | Choose... ⌄

---

to continue to do something that has already been planned or started | Choose... ⌄

to include or affect someone or something | Choose... ⌄

to do something as a reaction to something that has been said or done | Choose... ⌄

---

to recognize and correctly name someone or something | Choose... ⌄

to make a judgment about a person or situation after thinking carefully about it | Choose... ⌄

to officially form a group or organization | Choose... ⌄

to get something, especially an advantage or a pleasant feeling, from something | Choose... ⌄

---

having a very strong effect or felt very strongly | Choose... ⌄

feeling worried, uncomfortable, and unable to relax | Choose... ⌄

when someone is unwilling to do something, or when they do something slowly to show that they are not very willing | Choose... ⌄

easy to understand because it is clear and reasonable | Choose... ⌄

---

to accept that you are responsible for a piece of work, and start to do it | Choose... ⌄

to correct or make small changes to something that is written or spoken | Choose... ⌄

to develop and change gradually over a long period of time | Choose... ⌄

to describe something correctly and thoroughly, and to say what standards, limits, qualities etc it has that make it different from other things Choose... ▼

to start a company, organization, system, etc that is intended to exist or continue for a long time Choose... ▼

to be based on or depend on something Choose... ▼

to keep something or continue to have something Choose... ▼

to gradually become familiar with a new situation Choose... ▼

to make people obey a rule or law Choose... ▼

someone who regularly does a particular activity Choose... ▼

someone you work with, used especially by professional people Choose... ▼

someone who takes a job or position previously held by someone else Choose... ▼

a period of 10 years Choose... ▼

clearly different or belonging to a different type Choose... ▼

easy to see, notice, or understand Choose... ▼

to be similar to but not exactly the same as something Choose... ▼

to provide someone with a place to stay, live, or work Choose... ▼

to make something certain to happen or to be achieved Choose... ▼

to examine something carefully in order to find out more about it or to find out what is wrong with it Choose... ▼

to give an acceptable explanation for something that other people think is unreasonable Choose... ▼

the words, style, and grammar used by speakers and writers in a particular situation or in a particular type of writing Choose... ▼

to come into a country in order to live there permanently Choose... ▼

to fasten or connect one object to another — Choose... ⌄

to use something for a particular purpose, give something to a particular person etc, especially after an official decision has been made — Choose... ⌄

to recognize a difference between things — Choose... ⌄

to use the knowledge and information you have in order to understand something or form an opinion about it — Choose... ⌄

to stop someone from doing what they want to do — Choose... ⌄

to come together, especially for a formal meeting — Choose... ⌄

to make a problem or subject easy to notice so that people pay attention to it — Choose... ⌄

to change what you are doing so that you are not following an expected plan, idea, or type of behaviour — Choose... ⌄

to try to get as much as you can out of a situation, sometimes unfairly — Choose... ⌄

to trust or depend on someone or something to do what you need or expect them to do — Choose... ⌄

to arrange for a book, magazine etc to be written, printed, and sold — Choose... ⌄

to suggest that something is true, without saying this directly — Choose... ⌄

to continue to do something, although this is difficult, or other people oppose it — Choose... ⌄

to think that a particular belief or opinion is most likely to be correct — Choose... ⌄

to make someone feel certain that something is true — Choose... ⌄

to fill a particular amount of space, time, place, etc — Choose... ⌄

to find a satisfactory way of dealing with a problem or difficulty — Choose... ⌄

to show or suggest that someone is involved in a crime or dishonest act — Choose... ⌄

an amount of money that is collected and kept for a particular purpose　Choose... ▾

a part of a situation or a quality involved in it　Choose... ▾

the opinions and feelings that you usually have about something　Choose... ▾

to use time, energy, goods etc　Choose... ▾

to change something to make it different　Choose... ▾

to become or make something become smaller or less　Choose... ▾

to have a dialogue with someone　Choose... ▾

to begin or to start something　Choose... ▾

money that is paid by a government or organization to make prices lower, reduce the cost of producing goods etc　Choose... ▾

something that exists as a single and complete unit　Choose... ▾

something that you hope to achieve in the future　Choose... ▾

to improve something　Choose... ▾

to give the exact words of something that has been written, especially in order to support an opinion or prove an idea　Choose... ▾

to give someone a particular job or make them responsible for a particular person or thing　Choose... ▾

to get better after an illness, accident, shock etc　Choose... ▾

to be the cause of something, or be the basic thing from which something develops　Choose... ▾

to show that something is definitely true, especially by providing more proof　Choose... ▾

to send or pass something from one person, place or thing to another — Choose... ▾

to become involved in an argument, fight, or other difficult situation in order to change what happens — Choose... ▾

to repeat exactly what someone else has said or written — Choose... ▾

to say that something will happen, before it happens — Choose... ▾

to take action or make changes that you have officially decided should happen — Choose... ▾

to try to find out the truth about or the cause of something such as a crime, accident, or scientific problem — Choose... ▾

to provide a person or place with the things that are needed for a particular kind of activity or work — Choose... ▾

to recognize or express the difference between things or people — Choose... ▾

to start to use new ideas, methods, or inventions — Choose... ▾

to stop doing something or stop happening — Choose... ▾

to use all or most of your time, effort etc in order to do something or help someone — Choose... ▾

to keep someone or something within the limits of a particular activity or subject — Choose... ▾

to judge how good, useful, or successful something is — Choose... ▾

to get something that you want, especially through your own effort, skill, or work — Choose... ▾

to buy shares, property, or goods because you hope that the value will increase and you can make a profit — Choose... ▾

to expect that something will happen and be ready for it — Choose... ▾

to succeed in achieving something after trying for a long time — Choose... ▾

to give support to an opinion, idea, or feeling, and make it stronger — Choose... ▾

to change the effect or influence of something, especially to make the effect less bad   Choose... ⌄

to stop someone from doing something, often by using physical force   Choose... ⌄

to gradually reduce something such as someone's power or confidence   Choose... ⌄

to exist in a way that may cause a problem, danger, difficulty etc   Choose... ⌄

to make someone feel certain that something is true   Choose... ⌄

to use a law, principle, or theory to support your views   Choose... ⌄

to experience something, especially problems or opposition   Choose... ⌄

a person who has a high level of mental ability and is good at understanding ideas and thinking clearly   Choose... ⌄

the last, best, or most modern example of something   Choose... ⌄

not knowing facts or information that you ought to know   Choose... ⌄

certain to happen and impossible to avoid   Choose... ⌄

to combine two or more parts or things to make a single unit   Choose... ⌄

to add something, especially to what you earn or eat, in order to increase it to an acceptable level   Choose... ⌄

to gather people or things together in one place, often for a particular purpose   Choose... ⌄

to use something new or different instead of something else   Choose... ⌄

to show something that is usually covered or hidden   Choose... ⌄

to admit or accept that something is true or that a situation exists   Choose... ⌄

to do something wrong or illegal   Choose... ⌄

to appear or come out from somewhere   Choose... ⌄

to take something away from, out of, or off the place where it is   Choose... ⌄

to arrange for something important to start, such as an official process or a new plan [Choose... ▼]

to travel from one part of the world to another to live there or to find work [Choose... ▼]

to include something as part of a group, system, plan etc [Choose... ▼]

to refuse to accept, believe in, or agree with something [Choose... ▼]

to become larger in size, number, or amount, or to make something become larger [Choose... ▼]

to make something continue to exist or happen for a period of time [Choose... ▼]

to make something impossible or prevent it from happening [Choose... ▼]

to give a plan, piece of writing etc to someone in authority for them to consider or approve [Choose... ▼]

to go somewhere with someone [Choose... ▼]

to replace or balance the effect of something bad [Choose... ▼]

to make something safe from being attacked, harmed, or lost [Choose... ▼]

to live in a particular place [Choose... ▼]

a fully-grown person or animal, or one who is considered to be legally responsible for their actions [Choose... ▼]

an amount of money that you pay to do something or that you pay to a professional person for their work [Choose... ▼]

a combination of two or more parts, substances, or qualities [Choose... ▼]

a sudden clear understanding of something or part of something, especially a complicated situation or idea [Choose... ▼]

the world [Choose... ▼]

rules or instructions about the best way to do something [Choose... ▼]

APPENDIX 4

(Post-tests of the study (Test 1& Test 2), Post-tests of Productive and Receptive Academic Vocabulary Knowledge)

Test 1

They should **ame** [____] the law to include women.

"money that is paid by a government or organization to make prices lower, reduce the cost of producing goods etc"

Select one:
- ○ a. outcome
- ○ b. insight
- ○ c. guideline
- ○ d. compound
- ○ e. entity
- ○ f. subsidy
- ○ g. component
- ○ h. fund
- ○ i. practitioner

We need to **conv** [____] a special meeting to deal with the conflict between students and teachers.

"to change what you are doing so that you are not following an expected plan, idea, or type of behaviour"

Select one:
- ○ a. compensate
- ○ b. reside
- ○ c. compile
- ○ d. invoke
- ○ e. deviate
- ○ f. legislate
- ○ g. append
- ○ h. incline
- ○ i. confer
- ○ j. constitute
- ○ k. precede

The change happens in a series of **disc**[_____]steps.

"to discuss something with other people, so that everyone can express their opinions and decide on something"

Select one:

○ a. invoke

○ b. reside

○ c. confer

○ d. legislate

○ e. append

○ f. compensate

○ g. constitute

○ h. deviate

○ i. compile

○ j. incline

○ k. precede

Insect populations **fluc**[_____]wildly from year to year.

"to make a law about something"

Select one:

○ a. confer

○ b. legislate

○ c. precede

○ d. deviate

○ e. append

○ f. constitute

○ g. compensate

○ h. invoke

○ i. compile

○ j. incline

○ k. reside

Most people **equ**[_____] wealth with success.

"to live in a particular place"

Select one:
- a. append
- b. precede
- c. constitute
- d. invoke
- e. reside
- f. compensate
- g. compile
- h. confer
- i. legislate
- j. incline
- k. deviate

Tall buildings can **dist**[_____] radio signals.

"to add something to a piece of writing"

Select one:
- a. compensate
- b. append
- c. legislate
- d. compile
- e. confer
- f. constitute
- g. incline
- h. reside
- i. deviate
- j. precede
- k. invoke

Financial factors should not **cons**[____] doctors from doing their best for patients.

"to replace or balance the effect of something bad"

Select one:
- ○ a. precede
- ○ b. append
- ○ c. compile
- ○ d. legislate
- ○ e. deviate
- ○ f. compensate
- ○ g. incline
- ○ h. reside
- ○ i. constitute
- ○ j. confer
- ○ k. invoke

Plant some trees on the cliffs if you don't want the soil to constantly **er**[____].

"to use a law, principle, or theory to support your views"

Select one:
- ○ a. append
- ○ b. constitute
- ○ c. compile
- ○ d. compensate
- ○ e. invoke
- ○ f. reside
- ○ g. confer
- ○ h. precede
- ○ i. legislate
- ○ j. incline
- ○ k. deviate

The politicians are expected not to **imp**[_____] in the judicial matters.

"to think that a particular belief or opinion is most likely to be correct"

Select one:
- ○ a. incline
- ○ b. compile
- ○ c. reside
- ○ d. confer
- ○ e. append
- ○ f. deviate
- ○ g. legislate
- ○ h. invoke
- ○ i. constitute
- ○ j. compensate
- ○ k. precede

The army will have to **int**[_____] to prevent further fighting.

"to make a book, list, record etc, using different pieces of information, music etc"

Select one:
- ○ a. invoke
- ○ b. legislate
- ○ c. append
- ○ d. incline
- ○ e. compile
- ○ f. deviate
- ○ g. constitute
- ○ h. compensate
- ○ i. precede
- ○ j. reside
- ○ k. confer

I would love to be able to **gr**[____] her wish.

"to happen or exist before something or someone, or to come before something else in a series"

Select one:
- a. compile
- b. compensate
- c. reside
- d. confer
- e. legislate
- f. precede
- g. invoke
- h. incline
- i. append
- j. constitute
- k. deviate

Teaching is a **comp**[____] of several different skills.

"to officially form a group or organization"

Select one:
- a. compile
- b. precede
- c. invoke
- d. constitute
- e. append
- f. confer
- g. compensate
- h. reside
- i. deviate
- j. incline
- k. legislate

The politicians are expected not to **imp**[_____] in the judicial matters.

"to think that a particular belief or opinion is most likely to be correct"

Select one:

○ a. incline

○ b. compile

○ c. reside

○ d. confer

○ e. append

○ f. deviate

○ g. legislate

○ h. invoke

○ i. constitute

○ j. compensate

○ k. precede

It is important to learn a strategy which will help you to **ded**[_____] the meaning of new vocabulary from context.

"to take action or make changes that you have officially decided should happen"

Select one:

○ a. restrain

○ b. unify

○ c. incorporate

○ d. implement

○ e. evolve

○ f. commence

○ g. retain

○ h. inspect

○ i. exclude

○ j. interpret

Nothing would **ind** [____] me to vote for that person again.

"to stop someone from doing something, often by using physical force"

Select one:
- a. implement
- b. commence
- c. interpret
- d. restrain
- e. evolve
- f. inspect
- g. incorporate
- h. retain
- i. unify
- j. exclude

We must consider how best to **uti** [____] what resources we have.

"to keep something or continue to have something"

Select one:
- a. incorporate
- b. commence
- c. restrain
- d. evolve
- e. retain
- f. inspect
- g. unify
- h. interpret
- i. exclude
- j. implement

Someone once said that a friend is one who believes in you when you **cea** [   ] to believe in yourself.

"to begin or to start something"

Select one:
- a. exclude
- b. evolve
- c. retain
- d. restrain
- e. incorporate
- f. inspect
- g. commence
- h. implement
- i. interpret
- j. unify

The witness statements **cont** [   ] each other and the facts remain unclear.

"to not allow someone to take part in something or not allow them to enter a place"

Select one:
- a. interpret
- b. restrain
- c. exclude
- d. incorporate
- e. evolve
- f. unify
- g. inspect
- h. retain
- i. implement
- j. commence

We need to find extra **fu**[____] for this project.

"to include something as part of a group, system, plan etc"

Select one:

- ○ a. exclude
- ○ b. commence
- ○ c. retain
- ○ d. implement
- ○ e. interpret
- ○ f. incorporate
- ○ g. restrain
- ○ h. evolve
- ○ i. inspect
- ○ j. unify

Test 2

"to correct or make small changes to something that is written or spoken"

Select one:
○ a. fluctuate
○ b. intervene
○ c. erode
○ d. compound
○ e. amend
○ f. implicate
○ g. distort
○ h. allocate
○ i. grant
○ j. constrain
○ k. convene
○ l. equate

Farmers receive a **subs** [_____] from the government to keep the price of wheat down for the consumers.

"to come together, especially for a formal meeting"

Select one:
○ a. amend
○ b. constrain
○ c. grant
○ d. distort
○ e. intervene
○ f. allocate
○ g. fluctuate
○ h. compound
○ i. implicate
○ j. erode
○ k. convene
○ l. equate

The plane had to **dev** [_____] from its normal flight path.

"clearly separate"

Select one:
○ a. compatible
○ b. sole
○ c. reluctance
○ d. discrete

He looked around and said that he wanted to **con**[＿＿＿] with his parents.

"to keep changing and becoming higher and lower"

Select one:
- ○ a. constrain
- ○ b. distort
- ○ c. compound
- ○ d. allocate
- ○ e. intervene
- ○ f. implicate
- ○ g. equate
- ○ h. grant
- ○ i. fluctuate
- ○ j. amend
- ○ k. convene
- ○ l. erode

We must **leg**[＿＿＿] to control these drugs.

"to consider that two things are similar or connected"

Select one:
- ○ a. compound
- ○ b. amend
- ○ c. allocate
- ○ d. convene
- ○ e. implicate
- ○ f. erode
- ○ g. distort
- ○ h. grant
- ○ i. equate
- ○ j. fluctuate
- ○ k. constrain
- ○ l. intervene

They **res**[＿＿＿] in a small and beautiful village by the sea.

"to change the appearance, sound, or shape of something so that it is strange or unclear"

Select one:
- ○ a. allocate
- ○ b. distort
- ○ c. convene
- ○ d. intervene
- ○ e. erode
- ○ f. constrain
- ○ g. amend
- ○ h. fluctuate
- ○ i. equate
- ○ j. implicate
- ○ k. compound
- ○ l. grant

She was asked to **app** [＿＿＿] her signiture to the document.

"to stop someone from doing what they want to do"

Select one:
- ○ a. constrain
- ○ b. amend
- ○ c. convene
- ○ d. allocate
- ○ e. grant
- ○ f. implicate
- ○ g. erode
- ○ h. fluctuate
- ○ i. distort
- ○ j. equate
- ○ k. intervene
- ○ l. compound

Because my left eye is so weak, my right eye has to work harder to **comp** [＿＿＿].

"to gradually reduce something such as someone's power or confidence"

Select one:

○ a. compound

○ b. intervene

○ c. fluctuate

○ d. grant

○ e. erode

○ f. amend

○ g. convene

○ h. equate

○ i. constrain

○ j. distort

○ k. allocate

○ l. implicate

The United Nations threatened to **inv** [   ] economic punishment if the talks were broken off.

"to use something for a particular purpose, give something to a particular person etc, especially after an official decision has been made"

Select one:

○ a. grant

○ b. compound

○ c. implicate

○ d. amend

○ e. intervene

○ f. allocate

○ g. constrain

○ h. convene

○ i. equate

○ j. erode

○ k. fluctuate

○ l. distort

The mind exists as a separate **ent**[_____].

"to become involved in an argument, fight, or other difficult situation in order to change what happens"

Select one:
- ○ a. implicate
- ○ b. amend
- ○ c. grant
- ○ d. convene
- ○ e. equate
- ○ f. constrain
- ○ g. allocate
- ○ h. intervene
- ○ i. fluctuate
- ○ j. compound
- ○ k. erode
- ○ l. distort

My mother has been using the Internet to **comp**[_____] recipes from around the world.

"to give someone something or allow them to have something that they have asked for"

Select one:
- ○ a. amend
- ○ b. allocate
- ○ c. implicate
- ○ d. distort
- ○ e. erode
- ○ f. fluctuate
- ○ g. convene
- ○ h. equate
- ○ i. grant
- ○ j. intervene
- ○ k. constrain
- ○ l. compound

A short speech from the chairman will **prec**[_____] the dinner in the meeting.

"a combination of two or more parts, substances, or qualities"

Select one:

○ a. guideline

○ b. fund

○ c. outcome

○ d. insight

○ e. compound

○ f. component

○ g. practitioner

○ h. entity

○ i. subsidy

We must redefine what should **const** [____] a family.

"to show or suggest that someone is involved in a crime or dishonest act"

Select one:

○ a. distort

○ b. implicate

○ c. amend

○ d. intervene

○ e. constrain

○ f. erode

○ g. equate

○ h. grant

○ i. convene

○ j. fluctuate

○ k. allocate

I **incl** [____] to the opinion that this principle causes religious discrimination.

The hospital needs a **pract** [____] of alternative medicine who will help the patients.

"to combine two or more parts or things to make a single unit"

Select one:
- ○ a. interpret
- ○ b. implement
- ○ c. inspect
- ○ d. restrain
- ○ e. exclude
- ○ f. retain
- ○ g. evolve
- ○ h. unify
- ○ i. incorporate
- ○ j. commence

The three years of the course are planned as a **coh** [____] whole.

"to explain the meaning of something"

Select one:
- ○ a. exclude
- ○ b. inspect
- ○ c. retain
- ○ d. commence
- ○ e. incorporate
- ○ f. evolve
- ○ g. restrain
- ○ h. interpret
- ○ i. implement
- ○ j. unify

The technique is being tried in classrooms to **ass**[____] what effects it may have.

"one of several parts that together make up a whole machine, system etc"

Select one:
- a. compound
- b. fund
- c. component
- d. insight
- e. guideline
- f. practitioner
- g. entity
- h. outcome
- i. subsidy

Many people can't **conc**[____] of a dinner without meat or fish.

" to develop and change gradually over a long period of time"

Select one:
- a. incorporate
- b. implement
- c. evolve
- d. commence
- e. retain
- f. exclude
- g. interpret
- h. restrain
- i. unify
- j. inspect

The company has successfully started to **inn**[____] new products and services.

"to examine something carefully in order to find out more about it or to find out what is wrong with it"

Select one:

○ a. implement

○ b. retain

○ c. exclude

○ d. unify

○ e. inspect

○ f. evolve

○ g. interpret

○ h. incorporate

○ i. commence

○ j. restrain

Exercise may **medi** [　　　] the effects of a bad diet.

APPENDIX 5

(Delayed *Post-tests of the study (CPAVK & CRAVK), Delayed Post-test of Productive and Receptive Academic Vocabulary Knowledge*)

CPAVK

They should **ame** [____] the law to include women.

They **res** [____] in a small and beautiful village by the sea.

Tall buildings can **dist** [____] radio signals.

She was asked to **app** [____] her signiture to the document.

Financial factors should not **cons** [____] doctors from doing their best for patients.

Because my left eye is so weak, my right eye has to work harder to **comp** [   ].

Plant some trees on the cliffs if you don't want the soil to constantly **er** [   ].

The United Nations threatened to **inv** [   ] economic punishment if the talks were broken off.

You should **all** [   ] the same amount of time to each question.

The mind exists as a separate **ent** [   ].

The army will have to **int** [   ] to prevent further fighting.

Farmers receive a **subs** [   ] from the government to keep the price of wheat down for the consumers.

My mother has been using the Internet to **comp** [   ] recipes from around the world.

I would love to be able to **gr**[____] her wish.

A short speech from the chairman will **prec**[____] the dinner in the meeting.

Teaching is a **comp**[____] of several different skills.

We must redefine what should **const**[____] a family.

The politicians are expected not to **imp**[____] in the judicial matters.

I **incl**[____] to the opinion that this principle causes religious discrimination.

The hospital needs a **pract**[____] of alternative medicine who will help the patients.

It is important to learn a strategy which will help you to **ded**[____] the meaning of new vocabulary from context.

The three years of the course are planned as a **coh**[____] whole.

Nothing would **ind**[____] me to vote for that person again.

We need to **conv** [_____] a special meeting to deal with the conflict between students and teachers.

The technique is being tried in classrooms to **ass** [_____] what effects it may have.

We must consider how best to **uti** [_____] what resources we have.

Many people can't **conc** [_____] of a dinner without meat or fish.

Someone once said that a friend is one who believes in you when you **cea** [_____] to believe in yourself.

The company has successfully started to **inn** [_____] new products and services.

The witness statements **cont** [_____] each other and the facts remain unclear.

Exercise may **medi** [_____] the effects of a bad diet.

We need to find extra **fu** [____] for this project.

The plane had to **dev** [____] from its normal flight path.

The change happens in a series of **disc** [____] steps.

He looked around and said that he wanted to **con** [____] with his parents.

Insect populations **fluc** [____] wildly from year to year.

We must **leg** [____] to control these drugs.

Most people **equ** [____] wealth with success.

CRAVK

"to correct or make small changes to something that is written or spoken"

Select one:
- ○ a. implicate
- ○ b. equate
- ○ c. constrain
- ○ d. intervene
- ○ e. amend
- ○ f. grant
- ○ g. allocate
- ○ h. compound
- ○ i. erode
- ○ j. distort
- ○ k. fluctuate
- ○ l. convene

"to live in a particular place"

Select one:
- ○ a. deviate
- ○ b. constitute
- ○ c. confer
- ○ d. compensate
- ○ e. append
- ○ f. precede
- ○ g. incline
- ○ h. invoke
- ○ i. reside
- ○ j. compile
- ○ k. legislate

"to change the appearance, sound, or shape of something so that it is strange or unclear"

Select one:
- ○ a. compound
- ○ b. convene
- ○ c. fluctuate
- ○ d. erode
- ○ e. grant
- ○ f. constrain
- ○ g. amend
- ○ h. equate
- ○ i. implicate
- ○ j. distort
- ○ k. allocate
- ○ l. intervene

"to add something to a piece of writing"

Select one:

○ a. deviate

○ b. legislate

○ c. invoke

○ d. compile

○ e. constitute

○ f. confer

○ g. incline

○ h. precede

○ i. compensate

○ j. reside

○ k. append

"to stop someone from doing what they want to do"

Select one:

○ a. allocate

○ b. intervene

○ c. implicate

○ d. distort

○ e. compound

○ f. convene

○ g. amend

○ h. constrain

○ i. grant

○ j. equate

○ k. fluctuate

○ l. erode

"to replace or balance the effect of something bad"

Select one:

○ a. confer

○ b. compile

○ c. reside

○ d. invoke

○ e. incline

○ f. precede

○ g. append

○ h. constitute

○ i. deviate

○ j. compensate

○ k. legislate

"to gradually reduce something such as someone's power or confidence"

Select one:

○ a. distort

○ b. constrain

○ c. compound

○ d. equate

○ e. grant

○ f. allocate

○ g. fluctuate

○ h. intervene

○ i. erode

○ j. implicate

○ k. convene

○ l. amend

"to use a law, principle, or theory to support your views"

Select one:

○ a. constitute

○ b. append

○ c. reside

○ d. incline

○ e. precede

○ f. legislate

○ g. compensate

○ h. invoke

○ i. deviate

○ j. compile

○ k. confer

"to use something for a particular purpose, give something to a particular person etc, especially after an official decision has been made"

Select one:

○ a. constrain

○ b. implicate

○ c. grant

○ d. amend

○ e. intervene

○ f. allocate

○ g. fluctuate

○ h. distort

○ i. convene

○ j. equate

○ k. compound

○ l. erode

"something that exists as a single and complete unit"

Select one:

○ a. practitioner

○ b. outcome

○ c. guideline

○ d. component

○ e. compound

○ f. insight

○ g. subsidy

○ h. entity

○ i. fund

"to become involved in an argument, fight, or other difficult situation in order to change what happens"

Select one:

○ a. compound

○ b. equate

○ c. implicate

○ d. intervene

○ e. erode

○ f. allocate

○ g. fluctuate

○ h. convene

○ i. distort

○ j. constrain

○ k. amend

○ l. grant

"money that is paid by a government or organization to make prices lower, reduce the cost of producing goods etc"

Select one:

○ a. compound

○ b. guideline

○ c. fund

○ d. practitioner

○ e. component

○ f. entity

○ g. outcome

○ h. subsidy

○ i. insight

"to make a book, list, record etc, using different pieces of information, music etc"

Select one:

○ a. reside

○ b. append

○ c. compensate

○ d. invoke

○ e. incline

○ f. legislate

○ g. constitute

○ h. deviate

○ i. confer

○ j. precede

○ k. compile

"to give someone something or allow them to have something that they have asked for"

Select one:

○ a. amend

○ b. grant

○ c. distort

○ d. compound

○ e. convene

○ f. erode

○ g. constrain

○ h. implicate

○ i. allocate

○ j. fluctuate

○ k. equate

○ l. intervene

"to happen or exist before something or someone, or to come before something else in a series"

Select one:

○ a. deviate

○ b. legislate

○ c. confer

○ d. precede

○ e. compile

○ f. constitute

○ g. reside

○ h. append

○ i. invoke

○ j. incline

○ k. compensate

"a combination of two or more parts, substances, or qualities"

Select one:

○ a. outcome

○ b. guideline

○ c. practitioner

○ d. entity

○ e. insight

○ f. fund

○ g. subsidy

○ h. compound

○ i. component

"to officially form a group or organization"

Select one:
- ○ a. reside
- ○ b. compile
- ○ c. constitute
- ○ d. deviate
- ○ e. precede
- ○ f. invoke
- ○ g. incline
- ○ h. append
- ○ i. compensate
- ○ j. confer
- ○ k. legislate

"to show or suggest that someone is involved in a crime or dishonest act"

Select one:
- ○ a. intervene
- ○ b. fluctuate
- ○ c. allocate
- ○ d. erode
- ○ e. implicate
- ○ f. convene
- ○ g. equate
- ○ h. distort
- ○ i. constrain
- ○ j. grant
- ○ k. amend

"to think that a particular belief or opinion is most likely to be correct"

Select one:
- ○ a. compile
- ○ b. reside
- ○ c. append
- ○ d. confer
- ○ e. constitute
- ○ f. compensate
- ○ g. deviate
- ○ h. legislate
- ○ i. incline
- ○ j. invoke
- ○ k. precede

"to combine two or more parts or things to make a single unit"

Select one:
- ○ a. retain
- ○ b. incorporate
- ○ c. inspect
- ○ d. evolve
- ○ e. restrain
- ○ f. unify
- ○ g. implement
- ○ h. interpret
- ○ i. exclude
- ○ j. commence

"to take action or make changes that you have officially decided should happen"

Select one:
- ○ a. interpret
- ○ b. unify
- ○ c. retain
- ○ d. inspect
- ○ e. implement
- ○ f. exclude
- ○ g. incorporate
- ○ h. commence
- ○ i. restrain
- ○ j. evolve

"to come together, especially for a formal meeting"

Select one:
- ○ a. constrain
- ○ b. compound
- ○ c. grant
- ○ d. amend
- ○ e. distort
- ○ f. erode
- ○ g. implicate
- ○ h. allocate
- ○ i. intervene
- ○ j. equate
- ○ k. fluctuate
- ○ l. convene

"to explain the meaning of something"

Select one:
- ○ a. restrain
- ○ b. retain
- ○ c. evolve
- ○ d. exclude
- ○ e. inspect
- ○ f. interpret
- ○ g. incorporate
- ○ h. unify
- ○ i. implement
- ○ j. commence

"to stop someone from doing something, often by using physical force"

Select one:
- ○ a. restrain
- ○ b. unify
- ○ c. commence
- ○ d. incorporate
- ○ e. evolve
- ○ f. interpret
- ○ g. inspect
- ○ h. implement
- ○ i. exclude
- ○ j. retain

"one of several parts that together make up a whole machine, system etc"

Select one:

○ a. component

○ b. guideline

○ c. practitioner

○ d. subsidy

○ e. fund

○ f. outcome

○ g. insight

○ h. compound

○ i. entity

"to keep something or continue to have something"

Select one:

○ a. exclude

○ b. unify

○ c. evolve

○ d. commence

○ e. restrain

○ f. retain

○ g. inspect

○ h. interpret

○ i. implement

○ j. incorporate

" to develop and change gradually over a long period of time"

Select one:

○ a. retain

○ b. commence

○ c. exclude

○ d. incorporate

○ e. implement

○ f. restrain

○ g. unify

○ h. inspect

○ i. evolve

○ j. interpret

"to begin or to start something"

Select one:

○ a. evolve

○ b. implement

○ c. interpret

○ d. unify

○ e. inspect

○ f. retain

○ g. commence

○ h. incorporate

○ i. restrain

○ j. exclude

"to examine something carefully in order to find out more about it or to find out what is wrong with it"

Select one:
- ○ a. implement
- ○ b. exclude
- ○ c. interpret
- ○ d. restrain
- ○ e. inspect
- ○ f. unify
- ○ g. retain
- ○ h. commence
- ○ i. evolve
- ○ j. incorporate

"to not allow someone to take part in something or not allow them to enter a place"

Select one:
- ○ a. interpret
- ○ b. inspect
- ○ c. commence
- ○ d. retain
- ○ e. implement
- ○ f. incorporate
- ○ g. exclude
- ○ h. evolve
- ○ i. restrain
- ○ j. unify

"to include something as part of a group, system, plan etc"

Select one:

○ a. inspect

○ b. evolve

○ c. implement

○ d. commence

○ e. interpret

○ f. exclude

○ g. restrain

○ h. incorporate

○ i. retain

○ j. unify

"to change what you are doing so that you are not following an expected plan, idea, or type of behaviour"

Select one:

○ a. reside

○ b. constitute

○ c. append

○ d. deviate

○ e. confer

○ f. invoke

○ g. compensate

○ h. compile

○ i. incline

○ j. legislate

○ k. precede

"clearly separate"

Select one:

○ a. reluctance

○ b. coherent

○ c. discrete

○ d. sole

○ e. diverse

○ f. compatible

"to discuss something with other people, so that everyone can express their opinions and decide on something"

Select one:

○ a. confer

○ b. compensate

○ c. reside

○ d. precede

○ e. invoke

○ f. append

○ g. legislate

○ h. deviate

○ i. constitute

○ j. compile

○ k. incline

"to keep changing and becoming higher and lower"

Select one:

○ a. distort

○ b. implicate

○ c. fluctuate

○ d. amend

○ e. erode

○ f. constrain

○ g. allocate

○ h. intervene

○ i. convene

○ j. compound

○ k. grant

○ l. equate

"to make a law about something"

Select one:
- ○ a. append
- ○ b. precede
- ○ c. compensate
- ○ d. compile
- ○ e. deviate
- ○ f. reside
- ○ g. invoke
- ○ h. legislate
- ○ i. constitute
- ○ j. confer
- ○ k. incline
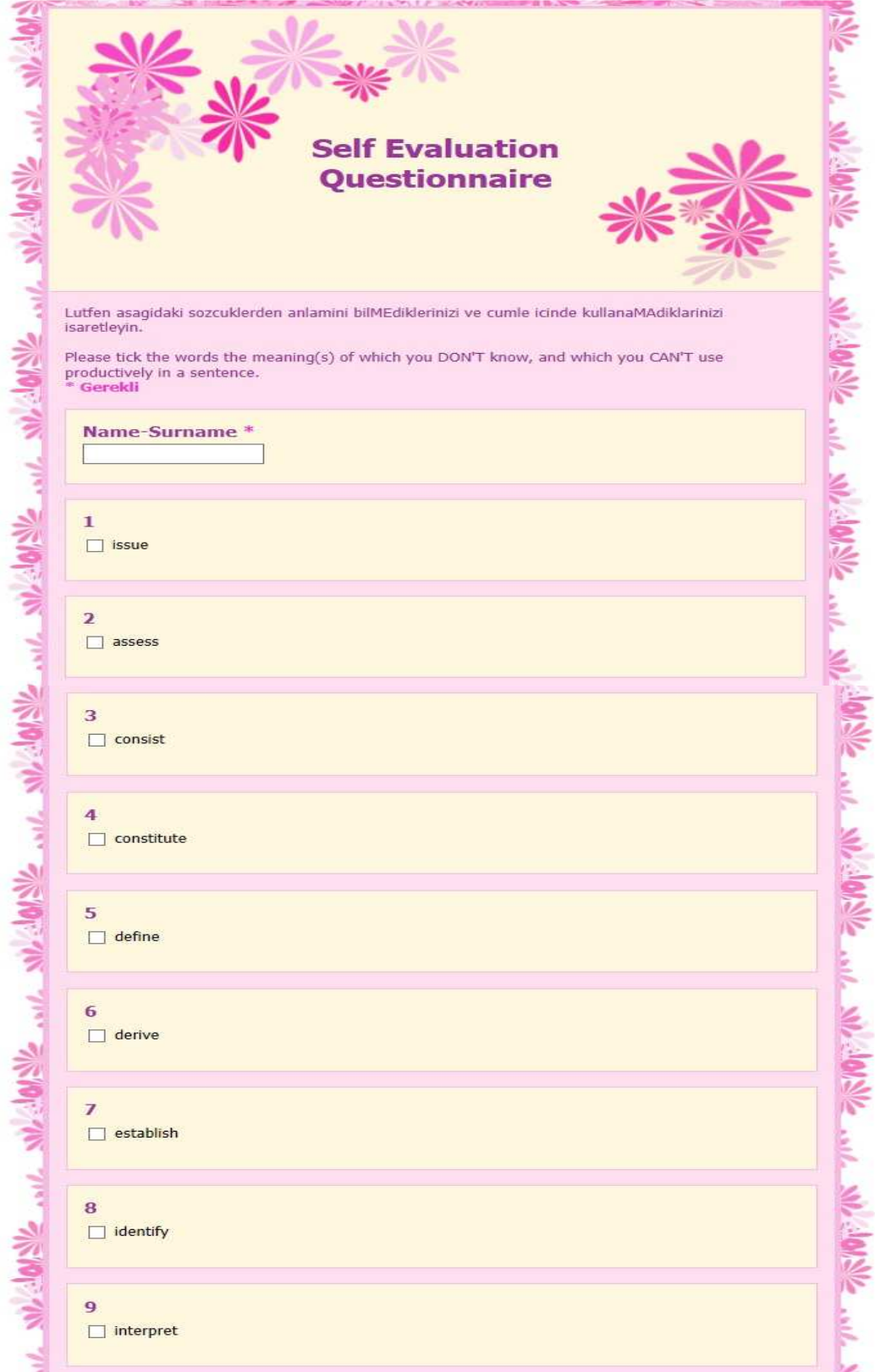
"to consider that two things are similar or connected"

Select one:
- ○ a. constrain
- ○ b. compound
- ○ c. amend
- ○ d. fluctuate
- ○ e. grant
- ○ f. convene
- ○ g. equate
- ○ h. intervene
- ○ i. erode
- ○ j. implicate
- ○ k. distort
- ○ l. allocate

APPENDIX 6

Self-evaluation Questionnaire

Self Evaluation Questionnaire

Lutfen asagidaki sozcuklerden anlamini bilMEdiklerinizi ve cumle icinde kullanaMAdiklarinizi isaretleyin.

Please tick the words the meaning(s) of which you DON'T know, and which you CAN'T use productively in a sentence.
* Gerekli

Name-Surname *

1
☐ issue

2
☐ assess

3
☐ consist

4
☐ constitute

5
☐ define

6
☐ derive

7
☐ establish

8
☐ identify

9
☐ interpret

10
☐ involve

11
☐ legislate

12
☐ proceed

13
☐ require

14
☐ respond

15
☐ vary

16
☐ evident

17
☐ aspect

18
☐ feature

19
☐ item

20
☐ resource

21
☐ tradition

22
☐ acquire

23
☐ conclude

24
☐ consume

25
☐ equate

26
☐ evaluate

27
☐ injure

28
☐ invest

29
☐ maintain

30
☐ obtain

31
☐ participate

32
☐ perceive

33
☐ reside

34
☐ restrict

35
☐ secure

36
☐ seek

37
☐ consequent

38
☐ distinct

39
☐ circumstance

40
☐ comment

41
☐ component

42
☐ fund

43
☐ outcome

44
☐ compensate

45
☐ constrain

46
☐ contribute

47
☐ convene

48
☐ correspond

49
☐ deduce

50
☐ exclude

51
☐ immigrate

52
☐ imply

53
☐ justify

54
☐ publish

55
☐ register

56
☐ rely

57
☐ remove

58
☐ valid

59
☐ attitude

60
☐ dimension

61
☐ goal

62
☐ attribute

63
☐ commit

64
☐ confer

65
☐ emerge

66
☐ grant

67
☐ implement

68
☐ implicate

69
☐ investigate

70
☐ occupy

71
☐ predict

72
☐ resolve

73
☐ retain

74
☐ undertake

75
☐ approximate

76
☐ compund

77
☐ entity

78
☐ adjust

79
☐ amend

80
☐ enforce

81
☐ evolve

82
☐ expand

83
☐ expose

84
☐ reject

85
☐ substitute

86
☐ sustain

87
☐ discrete

88
☐ stable

89
☐ fee

90
☐ subsidy

91
☐ acknowledge

92
☐ allocate

93
☐ assign

94

☐ attach

95

☐ cite

96

☐ discriminate

97

☐ enhance

98

☐ incorporate

99

☐ inhibit

100

☐ initiate

101

☐ instruct

102

☐ migrate

103

☐ precede

104

☐ presume

105

☐ recover

106

☐ reveal

107

☐ underlie

108
☐ utilise

109
☐ diverse

110
☐ flexible

111
☐ ignorant

112
☐ intelligent

113
☐ adult

114
☐ decade

115
☐ globe

116
☐ successor

117
☐ confirm

118
☐ convert

119
☐ differentiate

120
☐ dispose

121
☐ equip

122
☐ infer

123
☐ innovate

124
☐ intervene

125
☐ prohibit

126
☐ quote

127
☐ submit

128
☐ transmit

129
☐ sole

130
☐ ultimate

131
☐ guideline

132
☐ practitioner

133
☐ accompany

134
☐ accumulate

135
☐ append

136
☐ appreciate

137
☐ clarify

138
☐ conform

139
☐ contradict

140
☐ deviate

141
☐ displace

142
☐ exploit

143
☐ fluctuate

144
☐ highlight

145
☐ induce

146
☐ inspect

147
☐ reinforce

148
☐ eventual

149
☐ inevitable

150
☐ intense

151
☐ predominant

152
☐ tense

153
☐ virtual

154
☐ insight

155
☐ accommodate

156
☐ anticipate

157
☐ assure

158
☐ attain

159
☐ cease

160
☐ commence

161
☐ confine

162
☐ converse

163
☐ devote

164
☐ diminish

165
☐ distort

166
☐ erode

167
☐ found

168
☐ mediate

169
☐ relax

170
☐ restrain

171
☐ supplement

172
☐ suspend

173
☐ unify

174
☐ violate

175
☐ coherent

176
☐ compatible

177
☐ colleague

178
☐ assemble

179
☐ compile

180
☐ conceive

181
☐ convince

182
☐ encounter

183
☐ incline

184
☐ invoke

185
☐ persist

186
☐ pose

187
☐ reluctance

188
☐ differentiate

Gönder

General Evaluation Questionnaire

General Evaluation

Please feel free while answering the questions. Thank you!

1. Name-Surname

2. Gender?
- ☐ Female
- ☐ Male

3. What is the most important element in foreign language learning according to you?
Please give a grade for each between 1 and 5.

	1	2	3	4	5
Vocabulary	○	○	○	○	○
Grammar	○	○	○	○	○
Reading & Listening (Receptive Skills)	○	○	○	○	○
Writing & Speaking (Productive Skills)	○	○	○	○	○

4. Which of the following is more useful or helpful for a foreign language learner according to you?
Please give a grade for each between 1 and 5.

	1	2	3	4	5
Instructor-Teacher	○	○	○	○	○
Books-Printed Materials	○	○	○	○	○
The Internet	○	○	○	○	○
Computers-Digital Resources	○	○	○	○	○

5. In what way mostly has the course (EduTech & MatDev) contributed to you personally?

Please give a grade for each between 1 and 5.

	1	2	3	4	5
Basic skills (Vocabulary-Grammar)	○	○	○	○	○
Receptive Skills (Reading-Listening)	○	○	○	○	○
Productive Skills (Writing-Speaking)	○	○	○	○	○
Practical Skills	○	○	○	○	○
Theoretical Skills	○	○	○	○	○

6. To what degree is the following important in education according to you?

Please give a grade for each between 1 and 5.

	1	2	3	4	5
Attending classess regularly	○	○	○	○	○
Regular tasks and exercises	○	○	○	○	○
Using technology	○	○	○	○	○
Teacher attitudes	○	○	○	○	○
Classmates' attitudes	○	○	○	○	○

7. For what skills or elements can technology be used mostly?

Please give a grade for each between 1 and 5.

	1	2	3	4	5
Vocabulary	○	○	○	○	○
Grammar	○	○	○	○	○
Reading	○	○	○	○	○
Listening	○	○	○	○	○
Writing	○	○	○	○	○
Speaking	○	○	○	○	○
Practice	○	○	○	○	○
Theory	○	○	○	○	○

8. How should education be according to you (your opinion about the ideal education)?

Please feel free to write anything you think and wish.

9. How should testing-grading in education be according to you (your opinion about the ideal grading system and/or exams)?
Please feel free to write anything you think and wish.

Thank you very much for your cooperation! :)
Please join me next semester for the final and last test. Will you? :)

10. I would use the Internet and computers during my teaching practices.
Internet ve bilgisayarları öğretmenlik uygulamalarım sırasında kullanırım.

1 2 3 4 5

Strongly disagree ● ● ● ● ● Strongly agree

11. I would use the Internet and computers during my learning experiences.
Internet ve bilgisayarları öğrenme tecrübelerim sırasında kullanırım.

1 2 3 4 5

Strongly disagree ● ● ● ● ● Strongly agree

Gönder

APPENDIX 8

Course Evaluation Questionnaire

Course Evaluation Questionnaire

Responses are completely anonymous. Please attend each item in the following.

1. What do you think about the task-based, and exam free course delivery and approach?
Görev-odaklı, sınavsız ders yaklaşımı hakkında ne düşünüyorsunuz?

2. How have you felt during the computer assisted course delivery procedures?
Bilgisayar destekli ders yapma yöntemleri sırasında nasıl hissettiniz?

3. Have you met any difficulties during the course? Please specify if any.
Ders süresince herhangi zorluklarla karşılaştınız mı? Lütfen neler olduğunu belirtin.

4. What are your opinions about "online, distance, self-learning, or digital education?
Online, uzaktan, kendi kendine öğrenme veya dijital eğitim konusundaki düşünceleriniz nelerdir?

5. How often in a week do you use a computer ?
Haftada ne kadar sıklıkla bilgisayar kullanırsınız?
[Please select ▾]

6. How many hours a week do you spend on the Internet?
Haftada kaç saatinizi internette geçirirsiniz?
☐ 1 hour or less
☐ 2-5 hours
☐ 6-9 hours
☐ 10-15 hours
☐ More than 15 hours

7. I would use the Internet and computers during my teaching practices.
İnternet ve bilgisayarları öğretmenlik uygulamalarım sırasında kullanırım.

       1 2 3 4 5

Strongly disagree ○ ○ ○ ○ ○ Strongly agree

8. I would use the Internet and computers during my learning experiences.
İnternet ve bilgisayarları öğrenme tecrübelerim sırasında kullanırım.

　　　　　　1　2　3　4　5

Strongly disagree ○ ○ ○ ○ ○ Strongly agree

9. What can you say about the content of the course?
Dersin içeriği ile ilgili ne söyleyebilirsiniz?

○ interesting

○ boring

○ useful

○ not useful

○ challenging

○ motivating

○ Diğer: [_____]

10. How would you rate your experience related to Educational Technologies & Materials Development course?
Dersin içeriği ile ilgili aşağıdaki sıfatları nasıl değerlendirirsiniz?

	1	2	3	4	5
Pleasant (zevkli)	○	○	○	○	○
Exhausting (yorucu)	○	○	○	○	○
Easy (kolay)	○	○	○	○	○
Complicated (karmaşık)	○	○	○	○	○
Necessary (gerekli)	○	○	○	○	○
Irrelevant (gereksiz, alakasız)	○	○	○	○	○

[Gönder]

Motivation Questionnaire

Motivation Questionnaire

Your answers are completely anonymous! Please respond to each item.

1. I felt motivated while PREPARING digital tests and quizzes.
Dijital test ve quizler hazırlarken motive olmuş hissettim.

1 2 3 4 5

strongly disagree ○ ○ ○ ○ ○ strongly agree

2. I felt motivated while DOING exercises online.
Online alıştırmalar yaparken motive olmuş hissettim.

1 2 3 4 5

strongly disagree ○ ○ ○ ○ ○ strongly agree

3. I feel motivated when studying AT HOME on my own.
Evde, tek başıma çalışırken motive olmuş hissediyorum.

1 2 3 4 5

strongly disagree ○ ○ ○ ○ ○ strongly agree

4. I feel motivated when studying IN THE CLASS in the assistance of the instructor and/or classmates.
Sınıfta, hocamızın ve/veya sınıf arkadaşlarımın birlikteliğinde çalışırken motive olmuş hissediyorum.

1 2 3 4 5

strongly disagree ○ ○ ○ ○ ○ strongly agree

5. Working with HotPotatoes was a motivating activity for me.
HotPotatoes ile çalışmak benim için motive edici bir aktiviteydi.

1 2 3 4 5

strongly disagree ○ ○ ○ ○ ○ strongly agree

6. Working with WordPress Blogging was a motivating activity for me.
WordPress Blogging ile çalışmak benim için motive edici bir aktiviteydi.

1 2 3 4 5

strongly disagree ○ ○ ○ ○ ○ strongly agree

7. Working with MOODLE was a motivating activity for me.
MOODLE ile çalışmak benim için motive edici bir aktiviteydi.

1 2 3 4 5

strongly disagree ○ ○ ○ ○ ○ strongly agree

8. Preparing online Questionnaires was a motivating activity for me.
Online anketler hazırlamak benim için motive edici bir aktiviteydi.

1 2 3 4 5

strongly disagree ○ ○ ○ ○ ○ strongly agree

9. I feel motivated while working on the assigned tasks of the week.
Haftanın görevleri üzerinde çalışırken motive olmuş hissediyorum.

1 2 3 4 5

strongly disagree ○ ○ ○ ○ ○ strongly agree

10. Working with computers and online rather than traditional in-classroom way is more motivating for me.
Geleneksel, sınıf-içi şekline göre, bilgisayarlarla ve online çalışmak benim için daha motive edicidir.

1 2 3 4 5

strongly disagree ○ ○ ○ ○ ○ strongly agree

Gönder

APPENDIX 10

English Language Teacher Training Program in Turkish Universities

<table>
<tr><td colspan="12" align="center">ULUDAĞ UNIVERSITY
ELT PROGRAM</td></tr>
<tr><td colspan="12">FACULTY OF EDUCATION
DEPARTMENT/PROGRAM : ENGLISH LANGUAGE TEACHING</td></tr>
<tr><td colspan="6" align="center">I.TERM/FALL</td><td colspan="6" align="center">II.TERM SPRING</td></tr>
<tr><td>CODE</td><td>COURSE</td><td>T</td><td>A</td><td>L</td><td>Cred.</td><td>ECTS</td><td>CODE</td><td>COURSE</td><td>T</td><td>A</td><td>L</td><td>Cred.</td><td>ECTS</td></tr>
<tr><td>AIT 101</td><td>Atatürk's Principles and the Hist. of Turkish Revolution I</td><td>2</td><td>0</td><td></td><td>2</td><td>3</td><td>AIT 102</td><td>Atatürk's Principles and the History of Turkish Revolution II</td><td>2</td><td>0</td><td></td><td>2</td><td>3</td></tr>
<tr><td>BIL 1051</td><td>Computing I</td><td>2</td><td>2</td><td></td><td>3</td><td>3</td><td>BIL 1052</td><td>Computing II</td><td>2</td><td>2</td><td></td><td>3</td><td>4</td></tr>
<tr><td>EBB 1003</td><td>Introduction to Educational Sciences</td><td>3</td><td>0</td><td></td><td>3</td><td>3</td><td>EBB 1004</td><td>Psychology of Education</td><td>3</td><td>0</td><td></td><td>3</td><td>3</td></tr>
<tr><td>ING 1011</td><td>Contextual Grammar I</td><td>3</td><td>0</td><td></td><td>3</td><td>4</td><td>ING 1010</td><td>Contextual Grammar II</td><td>3</td><td>0</td><td></td><td>3</td><td>4</td></tr>
<tr><td>ING 1013</td><td>Advanced Reading and Writing I</td><td>3</td><td>0</td><td></td><td>3</td><td>3</td><td>ING 1012</td><td>Advanced Reading and Writing II</td><td>3</td><td>0</td><td></td><td>3</td><td>3</td></tr>
<tr><td>ING 1015</td><td>Listening and Pronunciation I</td><td>3</td><td>0</td><td></td><td>3</td><td>3</td><td>ING 1014</td><td>Listening and Pronunciation II</td><td>3</td><td>0</td><td></td><td>3</td><td>3</td></tr>
<tr><td>ING 1017</td><td>Oral Communication Skills I</td><td>3</td><td>0</td><td></td><td>3</td><td>4</td><td>ING 1016</td><td>Oral Communication Skills II</td><td>3</td><td>0</td><td></td><td>3</td><td>4</td></tr>
<tr><td>ING 1019</td><td>Effective Communication Skills</td><td>3</td><td>0</td><td></td><td>3</td><td>4</td><td>ING 1018</td><td>Vocabulary Acquisition</td><td>3</td><td>0</td><td></td><td>3</td><td>3</td></tr>
<tr><td>TUD 101</td><td>Turkish I: Writing</td><td>2</td><td>0</td><td></td><td>2</td><td>3</td><td>TUD 102</td><td>Turkish II: Speaking</td><td>2</td><td>0</td><td></td><td>2</td><td>3</td></tr>
<tr><td colspan="2">Total Credis</td><td></td><td></td><td></td><td>25</td><td>30</td><td colspan="2">Total Credits</td><td></td><td></td><td></td><td>25</td><td>30</td></tr>
</table>

III.TERM/FALL							IV.TERM SPRING						
CODE	COURSE	T	A	L	Cred.	ECTS	CODE	COURSE	T	A	L	Cred.	ECTS
ING 2003	English Literature I	3	0		3	5	ING 2002	English Literature II	3	0		3	5
ING 2011	Linguistics I	3	0		3	5	ING 2006	Linguistics II	3	0		3	5
ING 2007	Approaches to ELT I	3	0		3	5	ING 2004	Approaches to ELT II	3	0		3	5
ING 2013	English-Turkish Translation	3	0		3	4	ING 2012	Language Acquisition	3	0		3	5
ING 2015	Oral Expression and Public Speaking	3	0		3	4	ING 2014	Research Methodology	2	0		2	5
ING 2017	The History of Turkish Education	2	0		2	3	EBB 2006	ELT Methodology I	2	2		3	5
EBB 2003	Principles and Methods in Teaching	3	0		3	4	EBB 2004	Educational Technologies and Materials Design	2	2		3	
AIT203	Atatürk's Principles and the Hist. of Turkish Revolution III	2	0		2	2							
Total Credits					**22**	**32**	**Total Credits**					**20**	**30**

V.TERM/FALL							VI.TERM SPRING						
CODE	COURSE	T	A	L	Cred.	ECTS	CODE	COURSE	T	A	L	Cred.	ECTS
ING 3001	Teaching English to Young Learners I	2	2		3	5	ING 3006	Teaching English to Young Learners II	2	2		3	5
EBB 3003	Special Teaching Methods II	2	2		3	5	ING 3008	Turkish-English Translation	3	0		3	5
ING 3003	Teaching Language Skills I	2	2		3	5	ING 3010	Teaching Language Skills II	2	2		3	4
ING 3009	Short Story Analysis and Teaching	3	0		3	6	ING 3012	Novel Analysis and Teaching	3	0		3	4
ING 3011	Second Foreign Language I	2	0		2	3	ING 3014	Second Foreign Language II	2	0		2	5
ING 3013	Poetry Analysis	2	2		3	3	ING 3016	Social Services	1	2		2	4
EBB 3005	Classroom Management	2	0		2	3	EBB 3006	Testing and Evaluation	3	0		3	3
Total Credits		**15**	**8**		**19**	**30**	**Total Credits**		**16**	**6**		**19**	**30**

VII.TERM/FALL							VIII.TERM SPRING						
CODE	COURSE	T	A	L	Cred.	ECTS	CODE	COURSE	T	A	L	Cred.	ECTS
A	Language Teaching Materials Adaptation and Development	3	0		3	5	A	English Language Testing and Evaluation	3	0		3	5
A	Second Foreign Language III	2	0		2	5	A	Elective II (Computer Assisted Language Teaching)	2	0		2	5
A	Elective I (Pragmatics)	2	0		2	5	A	Elective III (Discourse Analysis)	2	0		2	5
MB	Intership	1	4		3	5	MB	Comparative Education	2	0		2	4
MB	Guidance	3	0		3	5	MB	Turkish Educational System and School Management	2	0		2	4
MB	Special Education	2	0		2	5	MB	Teaching Practice	2	6		5	7
Total Credits		13	4		15	30	Total Credits		13	6		16	30

APPENDIX 11

Educational Technologies and Materials Development Course

Content, Guideline, Acquisitions, and Outline

(*This is not official. The form provided hereby is generated and determined specifically for the current study by the researcher.*)

Course delivery:

- student-centred rather than instructor-centred

- task-based rather than knowledge-based

- practical rather than theoretical

Acquisitions:

By the end of the course students:

- will know how to integrate technology in education successfully.

- will be able to understand the basic terminology and communicate through the specific jargon of ICT and CALL.

- will be aware of the recent research, trend, opportunities, philosophies in FLL/T.

- will be able to evaluate the educational value of ELL/T websites.

- can exploit the Internet and adopt and/or adapt the appropriate written, visual and/or audio resources to satisfy the needs and interests of their learners.

- can find, select, and use the appropriate digital materials and tools that will correspond to the goals of a given topic or skill in order to enhance English language education.

- will be able to construct and activate a language learning/teaching website.

- can design and develop online exercises, and also publish these online.

- will be aware of and able to use the educational platforms, software and programs such as DynEd, Moodle, HotPotatoes, etc.

- can develop and apply online surveys, questionnaires, tests, etc. and evaluate the outcomes.

- will know how to implement synchronous and asynchronous language learning/teaching actions.

- can record, edit and embed audio and visual files, links, etc. in Word, Excel, PowerPoint, etc. documents.

- can download/upload, install/remove files and programs.

Course Outline

Week 1

Presenting the 14-week outline, aim and content of the course, and discussing about the materials and evaluation principles as well as the course delivery procedures.

Week 2

Introducing the basic terminology, texts, concepts, philosophies, ideas, and approaches related to FLL/T.

Week 3

Working with Word, Excel, PowerPoint and their alternatives (OpenOffice) to record, edit, and embed audio and visual files, links, etc.

Week 4

Introducing ways for developing and applying online surveys, questionnaires, tests, etc., collecting and evaluating the outcomes (SurveyMonkey, Google Documents).

Week 5

Informing about the educational platforms, software and programs such as DynEd, Moodle, HotPotatoes, etc. as well as the synchronous and asynchronous (Skype, chat, forums, e-mail, etc.) opportunities to communicate and deliver language education contents.

Week 6

Presenting ways to construct, host, launch, maintain, upload and update simple websites and to associate these with language learning/teaching documents and environments.

Week 7

Introducing MOODLE as an improved and flexible platform for language learning/teaching; practicing installation and setting up of a MOODLE site; exploring the features, opportunities, and facilities provided in it.

Week 8

Working with MOODLE. Creating study materials, worksheets, exercises, tests/exams on Vocabulary.

Week 9

Working with MOODLE. Creating study materials, worksheets, exercises, tests/exams on Grammar.

Week 10

Working with MOODLE. Creating study materials, worksheets, exercises, tests/exams on Reading.

Week 11

Working with MOODLE. Creating study materials, worksheets, exercises, tests/exams on Listening.

Week 12

Working with MOODLE. Creating study materials, worksheets, exercises, tests/exams on Writing.

Week 13

Presentations of individual/pair/group works.

Week 14

Conjoined project of combining individual/pair/group works to make a mega website for ELL/T.