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**COMPUTER-ASSISTED TEACHING OF THE PAST SIMPLE AND PAST
PARTICIPLE FORMS OF ENGLISH IRREGULAR VERBS**

M.A. THESIS

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**COMPUTER-ASSISTED TEACHING OF THE PAST SIMPLE AND PAST
PARTICIPLE FORMS OF ENGLISH IRREGULAR VERBS**

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ABSTRACT

This study tries to find out the answers to the research questions in order to be able to make contributions, if any, to some extent to learning and teaching commonly used English irregular verbs with computer-assisted language learning (CALL) materials designed on the basis of brain-based learning principles.

The semi-structured reflective questionnaire and the CALL materials created for this research were used to collect the data through two research questions. The mentioned questionnaire was emailed to the participants and the materials were presented to them on the Website of Sıtkı Koçman School of Foreign Languages under the title of CALL.

Research findings showed that ELT teachers of Sıtkı Koçman School of Foreign Languages taught irregular verbs in traditional ways like list memorisation, explicit grammar explanation, and course book activities, and that almost no teachers knew about computer assisted language learning. Another significant result obtained was that very few of them used computers in classes for educational purposes although they were all experienced teachers.

The participants of the study agreed that the CALL materials were useful enough to motivate students to enjoy learning irregular verbs easily, and that they all wanted to be able to design and use such materials.

In brief, CALL materials for English irregular verbs seemed to be accepted by experienced ELT teachers for several reasons.

Key words: English irregular verbs, Computer assisted language learning, Brain based learning,

ÖZET

Bu araştırma, insan beyninin doğal işlevleri üzerine odaklanan beyin temelli öğrenme çerçevesinde tasarlanmış, bilgisayar destekli dil öğrenme malzemeleri vasıtasıyla, yaygın kullanılan İngilizce düzensiz fiillerin öğrenme ve öğretimine, mümkünse, belli ölçüde katkıda bulunabilmek amacıyla iki araştırma sorusuna cevap bulmaya çalışmaktadır.

Araştırmaya veri toplamak için, yarı-yapılandırılmış görüş bildirme anketi ve bu araştırma için yapılmış bilgisayar destekli dil öğrenme malzemeleri kullanılmıştır. Söz konusu anket katılımcılara elektronik postayla gönderilmiş malzemeler ise Sıtkı Koçman Yabancı Diller Yüksek Okulunun internet sayfasında katılımcılara BDDÖ başlığıyla sunulmuştur.

Bu araştırma sonucunda, Sıtkı Koçman Yabancı Diller Yüksek Okulundaki İngilizce öğretmenlerinin İngilizce düzensiz fiilleri, liste ezberleme, düz gramer açıklama ve ders kitabındaki faaliyetleri takip gibi geleneksel şekillerde öğrettikleri ortaya çıkmıştır. Başka önemli bir sonuçta şudur; hepsi tecrübeli öğretmenler olsa da, katılımcılardan çok azı, derslerde eğitim amaçlı bilgisayar kullandıklarını bildirmişlerdir. Katılımcıların hepsi bu tür malzemelerin, öğrenciyi düzensiz fiilleri kolayca zevkle öğrenmeye teşvik edecek kadar faydalı olduğunu ve bütün katılımcılar bu tür malzemeleri kendilerinin de yapabilmeyi istediklerini ifade etmiştir.

Kısaca bilgisayar destekli dil öğrenme malzemeleri, birçok yönüyle, tecrübeli İngilizce öğretmenleri tarafından kabul görmüştür.

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I never expected to be led to new horizons of ELT by this thesis at first. It contributed immensely to my knowledge on ELT by broadening my horizons beyond words. After this work, I feel more confident and renewed completely in the field of ELT.

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CHAPTER 1

INTRODUCTION

1.1. Background of the Study

Language teaching is a complex process that involves several variables such as the target language nature, learners, teachers, and teaching-learning settings. Without taking into consideration all the above factors in language teaching-learning, it seems that no language can be taught in an effective way. They are closely intertwined. If one of them changes, so do the others.

English has a very eccentric sound and spelling irregularities related to almost all parts of speech mainly verbs, nouns, adjectives, and adverbs. As stated in Wikipedia at http://en.wikipedia.org/wiki/English_orthography, English orthography is the alphabetic spelling system used by the English language. English orthography, like other alphabetic orthographies, uses a set of rules that generally governs how speech sounds are represented in writing. English has relatively complicated spelling rules when compared to other languages with alphabetic orthographies. Because of the complex history of the English language, nearly every sound can be legitimately spelled in more than one way, and many spellings can be pronounced in more than one way. The most frequent and unavoidable irregular case is about “irregular verbs” without which one hardly communicate in daily life. It can be said to be one of the most challenging and demotivating part in English (Grabotvski and Mindt, 1995).

Encyclopædia Britannica (2009, para.1) describes “tense” as “an inflected form of a verb indicating the time of a narrated event in relation to the time at which the narrator is speaking”. Encyclopædia Britannica (2009, para.2) explains that “time is often perceived as a continuum with three main divisions, past, present, and future, defined in relation to the time when the event is described. Other categories, including mood and aspect, may further specify the action as definite or indefinite, completed or not completed lasting or non-lasting, and recurring or occurring once.” (<http://www.britannica.com/EBchecked/topic/587493/tense>)

According to Encyclopaedia Britannica (2009), verbs indicate the time of an action that may be in the past (he was), present (he is), or future (he will be). The great majority of English verbs take an –ed ending to turn into past simple and they are called regular verbs. Those that do not add an–ed ending are called irregular verbs that undergo a vowel shift: sing, sang, sung; fly, flew, flown; go, went, gone. The verb form having auxiliaries is the participle; present participle: talking and past participle: talked. (<http://www.britannica.com/EBchecked/topic/445926/past-tense>).

Merriam-Webster Online Dictionary (2009) defines the past participle as “a participle that typically expresses completed action, that is traditionally one of the principal parts of the verb, and that is traditionally used in English in the formation of perfect tenses in the active voice and of all tenses in the passive voice” ([http://www.merriam-webster.com/dictionary/past participle](http://www.merriam-webster.com/dictionary/past%20participle)).

Wikipedia, the free encyclopaedia, (2009) explains that English possesses two tenses through which verbs are conjugated: a non-past tense - present tense- and a past tense - characterised by ablaut - alternation in the vowels of related word forms, especially in Germanic strong verbs (e.g. in sing, sang, sung) or the suffix –ed. The future tense is indicated with a modal auxiliary, not verbal inflection. As “will” is a modal auxiliary, it cannot occur with other modals such as can, may, and must (http://en.wikipedia.org/wiki/Grammatical_tense).

Yagoda (2007) claims that it is very clear for everyone to conjugate English regular verbs in the past tense- add an -ed to them. He adds that all new verbs are inflected in this way, whereas about two hundred of English verbs are irregular that do not add an -ed ending to their past and past participle forms as in: get/got/gotten; be/was/been, say/said/said, make/made/made, know/knew/known, take/took/taken, have/had/had, do/did/done, go/went/gone, see/saw/seen, which are the ten most commonly used non-auxiliary verbs in English language. To his view, irregular verbs are difficult in comparison with regular ones since none of the ten most popular irregular verbs has the same form for conjugation.

Yong (2007) states that since ten years ago, scientists have realised that languages gradually change just like genes and living things. He points out that words and grammars of languages change and mutate over time, and new forms slowly become dominant while others undergo extinction. He adds that, nowadays,

the majority of English verbs take the suffix ‘-ed’ in their past tense versions. He gives some examples about regular and irregular verbs like ‘talked’ or ‘typed’, irregular ones that follow more antiquated rules, ‘sang/sung’ or ‘drank/drank’ or obey no rules at all ‘went’ and ‘had’. He also claims that, as the centuries passed by, the irregular verbs became fewer and far between, while newly emerging verbs like “google and email” obey regular verb inflection unlike the irregulars facing heavy pressure to regularise and conform. To his findings, today, less than 3% of verbs are irregular but they exert a disproportionate power. The ten most commonly used English verbs – be, have, do, go, say, can, will, see, take, and get – are all irregular.

1.2. Statement of the Problem

The English language may be said to be one of the hardest to learn, because of its creation from a confusing mixture of languages, and its complex rules. There are different rules for making words plural, past tense, and to indicate who is being talked about. By a great amount, the most difficult part about learning English is learning the exceptions to the rules.

Take for instance making words plural. In most cases, it's just fine to add "s" or "es" to the end of the word. It is that easy to learn and use. But what happens when you come to words like mouse? Foot? How about fish?

Now let us look at some adjectives: Good... gooder? Here is a neat little rhyme any learner can keep in mind easily: Good, better, best, never let it rest, till the good gets better, and the better best.

The same thing happens with past tense. I publish a book. I published a book. I stay in a hotel. I stayed in a hotel. I teach English. I ... teached? Words like taught, wore, and swam require learners to remember each word individually because there is really no rule for remembering how to make their present tense counterparts past tense. The copular verb “be” may be the most explicit definition of the irregularity of English irregular verbs with its eight forms: be, am, is, are, being, was, were, and been. Is it not highly irregular one? What about the verb “read” with its three same

forms but different pronunciation .That means learners must be taught not only to spell English irregular verbs but also to pronounce correctly.

As for language learners, they learn in many ways—by seeing and hearing: reflecting and acting: reasoning logically and intuitively: memorizing and visualizing. Teaching methods also vary. Some instructors lecture, others demonstrate or discuss: some focus on rules and others on examples: some emphasize memory and others understanding. How much a given student learns in a class is governed in part by that student's native ability and prior preparation but also by the compatibility of his or her characteristic approach to learning and the instructor's characteristic approach to teaching.

According to Appleyard (2009, para.2), English irregular verbs are very frustrating for learners all over the world as “most English dictionaries and grammar books seem content merely to provide lengthy alphabetical listings of irregular verbs in an appendix at the back.” He also states that almost no efforts appear to have been made to simply organize English irregular verbs in clearly common category for faster and more effective memorization.

(<http://www.davidappleyard.com/english/strongverbs.htm>).

According to Pinker (2001) regular verbs can be cognitively learned as they have a simple rule of adding an –ed to form past simple and past participle, whereas irregular verbs, a cause of great distress or annoyance for every language student, must be learned one by one and remembered every time they are used. He suggests that brain scanning studies lend support to the idea that different area of the brain process regular and irregular past forms separately. Pinker (2001) claims that regular past-tense forms are predictable in sound and generated freely because they are products of a rule that lives in the minds of children and adults: 'The past tense of a verb may be formed from the verb followed by the suffix -ed'. And he states that irregular verbs, in contrast, are unpredictable in form and restricted to a list because they are memorized and retrieved as individual words. He also suggests that words are either stored directly with their associated meanings, in a "mental dictionary", or

constructed using morphological rules. Leak and rose, for example, would be stored as mental dictionary entries, but the words leaking and roses do not need to be memorized separately, as they can be easily constructed by adding the appropriate suffixes.

Grabotvski and Mindt (1995, p.5) point out that for learners of English, irregular verbs represent one of the most difficult aspects of the language. They are normally presented in the form of alphabetical lists. Alphabetical lists do not, however, take into account the actual occurrence of these verbs. They claim that irregular verbs haunt learners of English from the beginning to the end of their studies and full mastery of irregular verbs seems to be very rarely achieved. For them, there are very few verb-less sentences in English and irregular verbs belong to the core of English and in all types of texts, forms of irregular verbs outnumber those of regular verbs. They clearly explain that the learning of irregular verbs is normally based on the well-known alphabetical lists which range from “abide to write.”

1.3. Aim of the Study

English irregular verbs are found mostly in long lists whether in grammar or course books and learners are asked to memorise them, which is thought to be frustrating, the bane of every language learner, and the most difficult aspect of English as mentioned above.

This study aims to produce CALL materials that are supposed to contribute to teaching and learning the preterit and past participle forms of English irregular verbs. Keeping the human brain in mind, these CALL materials are based on images, sound, music, colour and animation. They are all in one and ready to be used anywhere, anytime and many times.

This research tries to find out the answers to the following questions:

- 1- How have ELT teachers of Sıtkı Koçman School of Foreign Languages been teaching the past simple and past participle forms of English irregular verbs?
- 2- What do ELT teachers Sıtkı Koçman School of Foreign Languages think about the CALL materials designed to teach English irregular verbs?

Computers that have been an essential part of our daily, social, and professional life can contribute very much to creating the best possible settings to learn and teach any foreign language as they can be versatile, portable, and fast to reach any needed resources. They are very useful to form a virtual learning-teaching setting, whatever kind it is, that contains the key learning factors with which human brain is stimulated and widely open to receive, process and retain data for future uses.

1.4. Limitations of the Study

This research has some limitations without which it could reach richer and comprehensive data with experimental results containing all the active elements of foreign language learning such as teachers, learners, curricula, educational materials and learning environments. It is confined to Sıtkı Koçman School of Foreign Languages, Muğla University which provides one year preparatory class education and to 40 ELT teachers of Sıtkı Koçman School of Foreign Languages.

1.5. Operational Definitions

Regular verb: a verb which has the most typical forms in its language for grammatical categories such as TENSE or PERSON. In written English regular verbs form the past tense (a) by adding -ed to the verb base; walk → walked; (b) by adding -d to the base; smile → smiled; (c) by changing -y → -ied; cry → cried.

Irregular verb: A verb which does not have regular forms for tense, person, etc. is known as an irregular verb. Irregular verbs in English may form the past tense (a) by using the same form as the present tense; upset → upset; put → put (b) by having an irregular past tense form which is also used as past participle; keep → kept; catch → caught (c) by having an irregular past tense form which is different from the past participle; drive → drove → driven (Longman Dictionary of Language Teaching and Applied Linguistics, p.453).

CALL: computer assisted language learning.

The use of a computer in the teaching or learning of a second or foreign

language. CALL may take the form of : **a)** activities which parallel learning through other media but which use the facilities of the computer (e.g. using the computer to present a reading text) **b)** activities which are extensions or adaptations of print-based or classroom based activities (e.g. computer programs that teach writing skills by helping the student develop a topic and THESIS STATEMENT and by checking a composition for vocabulary, grammar, and topic development), and **c)** activities which are unique to CALL (Longman Dictionary of Language Teaching and Applied Linguistics, p.101).

CALLer: A language learner by means of computer.

CHAPTER 2

LITERATURE REVIEW

2.1. What is CALL?

Computer-assisted language learning (CALL) is a form of computer-based learning which carries two important features: bidirectional learning and individualized learning. It is not a method. CALL materials are tools for learning. The focus of CALL is learning, and not teaching. CALL materials are used in teaching to facilitate the language learning process. It is a student-centered accelerated learning material, which promotes self-paced accelerated learning. (http://en.wikipedia.org/wiki/Computer-assisted_language_learning)

One of the key factors of successful foreign language learning is to maximize a learner's exposure to the target language. Because the exposure to the language inside the classroom alone is not enough, practice at home plays a significant role. Nowadays, computers are, for teachers and students, the gateways to a wealth of information, contacts, and activities. The use of the Internet has developed rapidly - indeed some countries have wired up their entire public education systems - and the technology for self study, language laboratories, and computer corpora has developed far beyond any guess. The coming of Internet, the possibility of on-line courses and e-learning, and the Information society changed the relationship of language learning styles and behaviors, the roles of teachers, learners, and CALL. Such advances are only the most noticeable signs of progress in a profession which, fortunately, tends to improve constantly. The teaching of English is in a continuous state of flux, with new theories, practices, and materials erupting all over the world on an almost daily basis. We are constantly challenged by new research, provoked by the questioning of long-held beliefs, and amazed by the complete brilliance and creativity of a diverse population of teachers, methodologists, materials designers - and, of course, students - from all over the globe. In a world where certain values are unchangeable, and where the qualities of a good teacher may well be universal, change is nevertheless the vital part of our profession (Grenfell and Harris, 1999).

In this context Wilson and Thayalan (2007) point out that very efficient tools for learning and communication have been improved thanks to technological development. They add that the computer is widely used in schools, colleges, universities, institutions, offices and homes. They also claim that its uses have really increased in the field of education. To their view, computer knowledge is available for learners even at elementary level. Therefore, it is very precise that technological devices, especially the computer, have become indispensable in the process of learning. They point out that nowadays, the same necessity is being felt in the language learning process and language teachers and learners have already begun to think about the significance of computers for language learning, which is technically described as Computer Aided /Assisted Language Learning / Teaching. They define CALL CALL is the acronym used for such a learning process. In a broad sense, it refers to any endeavour involving computers in some significant way in language teaching or learning (<http://www3.telus.net/linguisticsissues/rolecall.html>).

Levy (1997) conceptualizes CALL as the use of a computer in accord with the functional roles of tutor and tool. He thinks that any vocabulary flashcard software or online grammar exercises represent the role of tutor and any language learning or teaching activity with a word processor, e-mail or web search engine like Google represent tool functions. He supposes that most of the early CALL applications were tutorial and at the present time, the role of tool use is dominant. He finally declares that these two roles of the computer are necessary for any effective language learning.

Warschauer (1996) divides CALL in three phases such as behaviouristic CALL, communicative CALL, and integrative CALL. The first one contains recurring language drills and is based on drill and practice. He says that it was designed in the 1950s and applied in the 1960s and '70s, and founded on the outstanding behaviourist theories of learning in which the computer is used as a tutor in order to teach learners any language. In other words, he means that the computer server is a means to convey the instructional materials to the learner. For him, recurring exposure to the same material is thought to be profitable and even indispensable to learning; a computer is perfect to accomplish repetitive drills because the machine

never gets tired of giving the same material and it can give instant objective feedback and individualized materials helping learners with their learning autonomy. He suggests that between late 1970s and early 1980s, behaviouristic CALL was replaced by communicative CALL as soon as behaviouristic language learning approaches had been turned down and the microcomputer had been introduced.

Hubbard (2009) states that CALL is not only interesting but also tiring as a research field and practice. It is interesting because it is not simple, static and fast changeable—and it is tiring for the same reasons. Technology adds dimensions to the already multifaceted domain of second language learning, demanding new knowledge and skills for those who wish to embed it in their professional practice or understand its effect on the language teacher and learner. Since computers have become more a part of our everyday lives and penetrated other areas of education, the question is no longer whether to use computers but how. CALL researchers, developers, and practitioners have a significant role in assisting the overall field of second language learning in contact with this field.

According to Seljan, Banek, Spiranec, and Lasic-Lazic (2009) Computer-Assisted Language Learning, developed at junctions of technology and language learning, meets human needs, industrial and educational development, cultural demands, entertainment and business. CALL programs, incorporated into distance-learning systems, offer students wide range of texts, multimedia materials, pre-structured exercises, tests, etc.

Computer Assisted Language Learning is not a norm in majority of English classes. Nonetheless, computers are not confined to IT classes anymore and more adventurous and inventive teachers of other subjects enrich their curricula with ICT techniques, hoping to raise the effectiveness of their teaching. Teaching foreign language these days is being shifted more towards learners. The role of the magister is a long-forgotten past. Teachers are at their learners service, but more as facilitators and councillors rather than omniscient mother/father figures. Computer technology has indisputably influenced the introduction of the new trends. Life in the

information era enforced the use of means that allow an easy and fast exchange of data in the process of educating young generations. With the Internet flourishing, and numerous forms of network communication, a new approach to teaching/learning foreign languages has been introduced. Foreign languages, especially English, are not aims in themselves, yet tools for exchanging thoughts, ideas, interests, etc. The two media, the network and language, have altered modern lifestyle. Thanks to electronic forms of exchanging messages, the process is fast and in most cases reliable. English as a first, second and foreign language presents on the info highway carries verbal and non-verbal messages. Despite iconographic presentations that are informative and attractive, verbalization of ideas and thoughts still seems to be indispensable (Wiazowski, 2009).

Wilson and Thayalan (2007) state that CALL is student-centred, and students are in control of their learning. They also say that the teacher plays a role of facilitator in the learners' learning process. To their views, in regular labs, teachers are controlled by the material brought to class, while in a CALL lab, for teachers there can be as many materials as they wish. They point out that, on a single computer, learners can reach a wide range of media such as texts, graphics, sound, animation and video, which directly stimulate learners to learn with enthusiasm.
(www3.telus.net/linguisticsissues/rolecall.html).

Tick (2006) asserts that multimedia applications and network based solutions brought about other aspects of learner's behaviors and encourage the introduction of individual based classroom or distance language learning. They have had a significant impact on the way foreign languages are being taught and learned. In recent years, CALL has come of age. Consequently, digital tools for learning have become integrated elements of foreign language syllabuses.
(www.bmf.hu/conferences/sami2006/Andrea_Tick.pdf)

New developments in technology and communication present new opportunities for facilitating and improving the efficiency of language learning. Keeping in mind the importance of the latter in the context of expanding EU, Computer-Assisted Language Learning has become, with ever-increasing rapidness, both an exciting and highly applicable in language learning practice area of research. Constant growing in the field of IT terminology requires employing flexible learning approaches in order to facilitate students in improving the specific vocabulary. Multimedia programmes provide audio, graphics and video, vocabulary sources such as concordances, dictionaries and glossaries; the Internet offers an affordable, instant access to a vast variety of authentic texts, as well as an unprecedented opportunity for using the target language in real-time intercultural communication. However, the availability of technology does not constitute by itself language learning: there comes the problem of implementing technology in the language classroom (Kremenska, 2006).

Gupta (2009) points out that with the expanding role of computers, educational institutions are considering ways to embed technology in classrooms either through Computer-Assisted Language Learning or Network-Based Language Teaching. This creates an unusual problem; students are more familiar with the technology than their language teachers. Fear of appearing incompetent in front of their students drives many teachers away from experimenting with the technology and using it in their classrooms. In addition, language teachers are often unsure how the technology can be used to meet their educational objectives. With the increasing use of computers in such spheres as business, communication, and entertainment, educational institutions have also started examining ways to embody computers in the classroom. Often, teachers are under pressure to use the technology in their classrooms and language teachers are looking at ways to use Computer-Assisted Language Learning and Network-Based Language Teaching to teach language skills. When teachers use computers to teach language skills, they have two major concerns: first, how much technology they need to know and, second, how to make effective use of the technology so that they can meet their educational purposes.

Tick (2006) states that since the introduction of the first computer based language teaching programs in the 1960s' computer assisted language learning have gone through deep and radical development. The rapid development and change in technology have tremendously changed the attitudes of teachers and students towards language teaching and learning.

(www.bmf.hu/conferences/sami2006/Andrea_Tick.pdf)

2.1.1. Some Applications of CALL

The use of computer hardware and software in education and training dates to the early 1940s, when American researchers developed flight simulators which used analogue computers to generate simulated onboard instrument data.

(http://en.wikipedia.org/wiki/Educational_software).

These days, a huge amount of software provides students, teachers and parents with a better chance to have more effective language learning and teaching. The media bring learners closer to the reality in which they must eventually immerse themselves... much more real than the teacher and the textbook. They bring not only a variety of native target-language speakers into the mix, but they can also present a visual context filled with learnable gestures and memorable cultural icons. They can insist that each student have good answers for all questions. They can offer learning situations presented in several different ways, thereby accommodating different learning styles. (http://globegate.utm.edu/french/globegate_mirror/call.html)

Some leading educational computer programs designed for different purposes have been presented below together with their websites where they can be downloaded.

Babylon Translator: It allows translating emails, web pages, documents, instant messages, and more by just clicking on the word or text that needs to be translated (<http://www.babylon.com/>).

Longman Exams Coach: The Longman Exams Coach on CD-ROM is a

revolutionary new approach to dictionary CD-ROMs which gives students extensive exam practice and help from their their personal virtual exams tutor (<http://www.pearsonlongman.com/>).

Linguatech Personal Translator: It is well-featured translation software capable of working smoothly with web-pages, documents and PDF files (<http://www.linguatec.de/products/tr/pt>).

Dragon Naturally Speaking: The world's most popular and best selling speech recognition software for personal, business or enterprise use. (<http://www.nuance.com/naturallyspeaking/products/professional.asp>).

Master Spoken English: Designed as a self-teaching fluency-building phonics program, "Master Spoken English" provides comprehensive training via speech exercises and drills. Both fluent native speakers of English as well as those with basic English skills can watch this program to increase resonance, clarity, fluency, and expressiveness. The program provides a colour-coded phonic system to aid viewers in the exercises. Word lists precede connected speech, with practice scenes (from actual movies) comprising the third and final level of training. The producers' skill and attention to details such as lighting, composition, and camera work create a program that is useful, informative, and visually pleasing. This is a fine work.

Each video emphasizes the two most important aspects of achieving success: warm-up exercises to relax and focus on the mind and body, and repetition of the exercises demonstrated. Animated sequences are used throughout the programs to show how sounds are formed in the mouth, which will be helpful for students whose native languages do not use similar sounds. This is an effective, useful program for speech instruction, and not just for speakers with foreign accents. Speakers with regional American dialects and general bad habits in speech can benefit as well. Each topic is explained thoroughly, and the animated sequences are most helpful for understanding how each sound is formed. The production quality is high, with good

pace and sound. It is recommended for academic and other libraries supporting ESL programs. (<http://www.masterspokenenglish.com/>).

Linguatech Voice Reader: With just a simple touch of a button, Voice Reader converts any kind of text into astonishingly good quality audio files. (http://www.linguatec.de/onlineservices/voice_reader)

Vocabulary 2.1: Specially for GRE/GMAT Test takers. Vocabulary is a vocabulary builder software for SAT, TOEFL, GRE, GMAT and general vocabulary. Vocabulary contains five books: SAT, TOEFL, GRE, GMAT and VOA Special English, with more than 12,000 words, each word provided with meaning, phonetic symbol and pronunciation. (<http://www.vocabulary.com/download.php>).

Singing Grammar: It is a resource book of supplementary materials for the teaching of grammar through the medium of song. (http://www.cambridge.org/elt/elt_projectpage.asp?id=2500275)

Oxford Practice Grammar: The right explanations and practice for your language level, plus the only CD-ROM with interactive 'find and correct the mistake' exercises. This three-level grammar practice series takes students through from elementary to advanced level English. The way in which grammar is presented and practised reflects the needs of the student at each stage of their learning. 'Basic' provides lots of practice and short explanations; 'Intermediate' gives you more detail with extended practice; 'Advanced' gives challenging practice activities and in-depth explanations. The series covers the grammar students need to know for international exams such as PET, FCE, CAE, CPE, and TOEFL. Exit tests ensure the student is ready for the next level of Oxford Practice Grammar. Each level comprises a book plus the Practice-Plus CD-ROM. The only grammar CD-ROM with interactive 'find and correct the mistake' exercises, to help students notice and correct their own mistakes. (<http://www.oup.com/elt/global/products/practicegrammar/>)

White Smoke: It is an advanced English writing software solution to check

grammar and more. Features include: grammar checker, style checker, spell checker and more. (<http://www.whitesmoke.com/>).

Cordial Correcteur: It is an advanced French writing software solution to check grammar and more. Features include: grammar checker, style checker, spell checker and more. (<http://www.synapse-fr.com/>)

Duden Korrektor: the leading spelling and grammar technology for the German market is already available for a wide range of text processing systems, including Microsoft Office, OpenOffice and Adobe FrameMaker.
(http://www.vollversion.de/download/duden_korrektor_1892.html)

Style Writer: It is the best writing software on the market. It teaches you and transforms your writing into a model of clear English. (<http://www.stylewriter-usa.com/>)

English Plus 12 CD Full Set: It improves four major language skills; reading, writing, listening, and speaking. It includes all the grammar rules, 30.000 words in total, over 3000 phrases. It comes with a Turkish menu when needed. It teaches everyday real life English and situations. Live animations, music, audio and fun games make learning easier. It uses the worldwide accepted English teaching curriculum. With exercises and tests, it enforces what is learnt. Each CD provides 120 hour interactive English learning. It connects the user to a virtual English world full of interesting and improving tests, games, and activities on the internet. Through speech recognition technology, it checks the speaker's utterance and pronunciation (<http://www.elitsoft.com.tr/english-plus/index.php>).

Teaching Template: It is a timesaving set of eight authoring tools that help you create interactive, web-based exercises, tests and quizzes. (<http://www.tac-soft.com/>)

Hot Potatoes: The Hot Potatoes suite includes six applications, enabling you to create interactive multiple-choice, short-answer, jumbled-sentence, crossword,

matching/ordering and gap-fill exercises for the World Wide Web. Hot Potatoes is not freeware, but it is free of charge for those working for publicly-funded non-profit-making educational institutions, who make their pages available on the web (<http://hotpot.uvic.ca/>).

Multimedia computers, configured with the right software permit students to do all of the basic language learning activities and many more, like viewing web sites, listening to or watching live radio and TV programming, reading the world's great literature, facilitate person-to-person communication through e-mail, chat, internet phone, low-end video conferencing, and many more. They have the capacity of taking students out of their monolingual and mono-cultural isolation, and either present or simulate the real-world target culture in which we are training students to operate. Voice recognition software allows students who choose to practice a much better idea of their accuracy than anything in an ordinary classroom. Multimedia computers can therefore develop all four linguistic skills and cultural competency. This and the fact that they can be used literally anywhere, make them important tools for learning independence, since students can have access to language learning materials (Peckham, 2009).

2.1.2. Advantages and Disadvantages of CALL

Advantages of CALL can be mainly classified in such themes as motivation, adapting learning to the student, authenticity, and critical thinking skills;

Motivation: Generally speaking, the use of technology inside or outside the classroom tends to make the class more interesting. However, certain design issues affect just how interesting the particular tool creates motivation

Adapting learning to the student: Computers can give a new role to teaching materials. Without computers, students cannot really influence the linear progression of the class content but computers can adapt to the student

Authenticity: “Authenticity” in language learning means the opportunity to interact in one or more of the four skills (reading, writing, listening, and speaking) by using or producing texts meant for an audience in the target language, not the classroom.

Critical thinking skills: Use of computer technology in classrooms is generally reported to improve self-concept and mastery of basic skills, more student-centred learning and engagement in the learning process, more active processing resulting in higher-order thinking skills and better recall, gain confidence in directing their own learning.

(http://en.wikipedia.org/wiki/Computer-assisted_language_learning)

According to Hubbard (2009), CALL has several advantages in the field of language learning and teaching process, for example:

Learning efficiency: learners are able to pick up language knowledge or skills faster or with less effort;

Learning effectiveness: learners retain language knowledge or skills longer, make deeper associations, and or learn more of what they need;

Access: learners can get materials or experience interactions that would otherwise be difficult or impossible to get or do;

Convenience: learners can study and practice with equal effectiveness across a wider range of times and places;

Motivation: learners enjoy the language learning process more and thus engage more fully;

Institutional efficiency: learners require less teacher time or fewer or less expensive resources.

Lai and Kritsonis (2006) state that research findings indicate that the use of computer has a positive effect on the success levels of second language learners, yet it still has its limitations and weaknesses, such as financial, isolated, and knowledge required issues. They emphasize that advantages and disadvantages of using computers must be recognized in order to get the maximum effectiveness of technology for the purpose of enhancing second language learning.

Torat (2000) explains briefly and clearly the advantages and disadvantages of CALL in the following way:

Advantages of CALL

Learner's Factors: It can correspond to learners' abilities and preferences and addresses cognitive and learning styles, self-paced learning, slow learners, fast learners. It provides individualized and private learning. It is versatile that is why it provides choices and paths for learning, allowing learners to work independently. It allows learners to control their own learning process and progress.

Motivation and Attitudes: CALL can motivate learners strongly to learn. Reluctant learners become eager to do on a computer what they are unwilling to do in a textbook or paper-pencil. Some features of CALL such as graphics, sounds, animation, video, audio are interesting and motivating for many learners as it can change learners' attitudes positively towards learning English via authentic communication on the internet that encourages learners to use language outside language classroom.

Feedback and Progress Record: It is able to offer instant responsiveness and feedback. Moreover, it provides accurate records of the learner's performance and progress.

Teacher's Roles and the Relationship with the Learner: It is able to change the relationship between teacher and learner. The teacher becomes a facilitator rather than a controller in the learning environment. It is predictable and objective.

Mastery Learning: Opportunities can be created for mastery-learning language skills. It can be time saving to master some materials.

Co-operative Learning: Simulation games encourage learners to work cooperatively in problem solving. CALL allows learners to learn cooperatively as a consequence of working together, such as group works, and discussion.

Communication: Games and puzzles produce information gaps making learners to communicate or interact with each other or with the program. E-mail, chat increase direct communicative skills learners. E-mail and chat provides authentic, real communication with native speakers of English outside the classroom.

Access to Information and Cultures: CD-ROM and the internet enable learners to attain immediately information and cultures around the world learners need.

Learning Environment: CALL is an objective medium in comparison to teachers and computers are always patient, never get angry, or play favourites like some teachers. That means a safe, active, and positive learning environment. Merging of various multimedia such as texts, graphics, sound, animation, and video create authentic meaningful language learning environments. In addition to all above, the internet does not have any restrictions regarding different time zones and places.

Cost Effectiveness: It is cost effective.

Research and practice suggest that, appropriately implemented, network-based technology can contribute significantly to:

Experiential Learning: They become the creators not just the receivers of knowledge. As the way information is presented is not linear, users develop thinking skills and choose what to explore.

Motivation: Computers are most popular among students either because they are associated with fun and games or because they are considered to be fashionable. Student motivation is therefore increased, especially whenever a variety of activities are offered, which make them feel more independent.

Enhanced Student Achievement: Network-based instruction can help pupils strengthen their linguistic skills by positively affecting their learning attitude and by helping them build self-instruction strategies and promote their self-confidence.

Authentic Materials for Study: All students can use various resources of authentic reading materials either at school or from their home. Those materials can be accessed 24 hours a day at a relatively low cost.

Greater Interaction: Random access to Web pages breaks the linear flow of instruction. By sending E-mail and joining newsgroups, EFL students can communicate with people they have never met. They can also interact with their own classmates. Furthermore, some Internet activities give students positive and negative feedback by automatically correcting their on-line exercises.

Individualization: Shy or inhibited students can be greatly benefited by individualized, student-centred collaborative learning.

Independence from a Single Source of Information: Although students can still use their books, they are given the chance to escape from canned knowledge and

discover thousands of information sources. As a result, their education fulfils the need for interdisciplinary learning in a multicultural world.

Global Understanding: A foreign language is studied in a cultural context. In a world where the use of the Internet becomes more and more widespread, an English Language teacher's duty is to facilitate students' access to the web and make them feel citizens of a global classroom, practicing communication on a global level (Lee, 2000)

Cobb (2009) suggests that CALL has many advantages for both learners and teachers, for instance:

- Students to develop listening comprehension, get used to listening to various speakers and develop speaking proficiency
- Students can go back to difficult text and listen as often as necessary
- Encourages students to focus on all language skills
- Practical for students with busy schedules
- Flexibility
- Less expensive than traditional teaching method
- Individualized practice and feedback
- Automated error correction
- Native language support
- Grammar & vocabulary resources
- External resources

Han (2008) states that CALL programs could offer second language learners; more independence from classrooms; language learners have the option to study at any time and anywhere; CALL programs can be wonderful stimuli for second language learning; computer can promote learning interaction between learners and teachers; computers can help classroom teaching with a variety of materials and approaches.

Disadvantages of CALL

Cost: Schools may not have no budget for CALL applications, so they do not afford to buy certain expensive CALL hardware and software. After the problematic budget comes the problem of CALL software expensive equipment and qualified staff for that. Learners all over the world may not have the same chance to profit from the internet like opportunities between the rich and poor.

Teacher's Attitudes and Anxiety: Whether lack of necessary technical qualification or for fear of being replaced by computers, ELT teachers may have negative attitudes towards CALL. And another fear is that the computer might isolate students from social activities.

Training: ELT teachers may not have the required computer-related skills, which means high cost and loss of time in education to train both teachers and learners to use computers and software properly.

Hardware, Compatibility, and Technical Support: It is often very hard for classroom teachers to install and maintain computer hardware.

Software: Many CALL software programs may be very poor on account of the lack of programmers with linguistic knowledge, language teaching approaches, and experiences.

CALL plays a crucial role in English language teaching and that if used fittingly with clear pedagogical objectives; CALL can attract and stimulate language learners. CALL can enable learners to reach much more information, create flexibility to instruction and thereby best serve learners' learning pace, cognitive style and learning strategies. CALL can give a learning autonomy to learners. Ever advancing computer technology is supposed to absorb some teaching functions, but despite greater user-friendliness, and effectiveness, CALL will never replace the teacher. CALL should not be supposed to play a magic solution role in language teaching as no other new technological products are. The way of the use of CALL in language learning determines its effectiveness to meet learners' needs (Torat, 2000).

Han (2008) summarises that although there are many benefits of computer, the application of current computer technology still has its limitations. There are a lot of barriers to the use of CALL in language learning in many different aspects related to CALL;

- a) Financial barriers are the main outstanding problems.
- b) Computers cannot handle unexpected situations due to technological barriers.
- c) Both teachers and students need training to learn to use computers.

According to Lee (2000), the barriers inhibiting the practice of Computer-assisted Language Learning can be classified in the following common categories (a) financial barriers, (b) availability of computer hardware and software, (c) technical and theoretical knowledge, and (d) acceptance of the technology.

2.2. What is an Irregular Verb?

According to Wikipedia, the free encyclopaedia on the internet, all languages have patterns and all languages have regular and irregular patterns. To make it clearer, all the words like noun, verb, adjective, will change and behave in a particular way. These changes will often occur in certain patterns, which make it easier language learners to apply the same rules to all of the related words. Nevertheless, learners must be careful because of irregular patterns that can be found in all languages as basic exceptions to the rule. There is no other way to learn them than memorising without any objection. They are the most used words all the time, very often in many languages, ‘to be’ and ‘to have’, which are both used on their own and with other verbs (http://en.wikipedia.org/wiki/Irregular_verbs).

McGovern (2003) points out that everyone has trouble with English irregular verbs. Small have difficulty learning and using them properly. Language learners make great efforts to learn the strange endings of irregular verbs. Some of them change entirely. He seeks for the answer to these questions; why does ‘go’ become ‘went’? Why do some verb endings remain the same in the past and present? He gives a good example of that case; “The book you read today is the same as the one you read yesterday. McGovern claims that irregular verbs seem illogical and then asks why they are so important in English? He reports that the psychologist, Steven Pinker, has an interesting theory indicating that irregular verbs are ‘fossils’ of an Indo-European pre-historic language. According to that theory, the Indo-Europeans wandered across Europe and southwest Asia and spoke language with a regular rule

in which one vowel replaced another. However, over time pronunciation changed. The ‘rules got confusing to children and finally died; the irregular past tense forms are their fossils.’

McGovern explains that there are nowadays around 180 irregular verbs in English, which may seem a lot, but there are thousands of regular verbs. Amazingly, irregular verbs are more popular than regular ones, 70% of which we use, the ten verbs we use most are all irregular: be, have, do, say, make, go, take, come, see, get. He also reports that the most infrequent verbs are all regular and one needs to work hard both to learn irregular endings and to memorise an irregular verb. He adds that it takes children years to discover that the past of speak must not be speaked. McGovern informs that some never learn that there is nobody ever ‘writ’ anything. All the common native speaker mistakes – we was, they done etc – involve irregular verbs. However, children have a remarkable capacity to memorise new words. They learn a new one every two hours and know an average 60,000 by the age of 13 (<http://www.eslreading.org/english/english/irregularverbs.html>).

Pinker (1994) points out that there are teasing patterns among the irregulars: ring-rang, sing-sang, spring-sprang, drink-drank, shrink-shrank, sink-sank, stink-stank; blow-blew grow-grew, know-knew, throw-threw, draw-drew, fly-flew, slay-slew; swear-swore, wear-wore, bear-bore, tear-tore. But they still resist being captured by a rule. Next to sing-sang are not cling-clang but cling-clung, not think-thank but think-thought, not blink-blank but blink-blinked. In between blow-blew and grow-grew sits glow-glowed. Wear-wore may inspire swear-swore, but tear-tore does not inspire stare-store. According to him, this chaos is an inheritance of the Indo-Europeans, the outstanding prehistoric tribe whose language took over most of Europe and south-western Asia and their language created tenses using rules regularly replacing one vowel with another. Nevertheless, as pronunciation habits changed in their descendant tribes, the rules became opaque to children and eventually died; the irregular past tense forms are their fossils. So every time an irregular verb is used, a game of Broken Telephone going on for more than five thousand years continues.

Pinker supposes that English irregular verbs have no future as Old English had more than twice as many irregular verbs as today. He reports that as some of the verbs became less common, like cleave-clove, abide-abode, and geld-gelt, children failed to memorize their irregular forms and applied the -ed rule instead (just as today children are apt to say winded and speaked). He adds that the irregular forms were doomed for these children's children and for all subsequent generations (though some of the dead irregulars have left souvenirs among the English adjectives, like cloven, cleft, shod, gilt, and pent). He says that on the one hand irregular verbs lose members, on the other hand no new irregular verb is born and English ends up with dinged, pinged, derided, succumbed, and flied out, not dang, pang, derode, succame, or flew out.

(http://pinker.wjh.harvard.edu/articles/media/2000_03_landfall.html).

Appleyard (2009) explains that English belongs to the Germanic group of languages descended from Proto-Indo-European. The utilization of root vowel inflections to indicate changes in verb tense was peculiar to Old Germanic. Whereas modern English use a simpler suffixing pattern (e.g. call-ed, phone-d, etc.), verbs with irregular vowel inflections still exist for some most basic and oldest activities, such as eating, drinking, sleeping, sitting, standing or swimming, which means that even the most elementary of students has to know that they need to memorise them.

Unluckily, since English orthography has been exposed to few reforms in the last 500 years, vowel shifts caused modern English to have a wider range of irregular verb inflections than in other Germanic languages. German or Swedish seem to have conjugational patterns much more easily categorized and memorized than those of English. As a result, for frustrated overseas learners, most English dictionaries and grammar books look pleased simply to provide lengthy alphabetical listings of irregular verbs in an appendix at the back. Amazingly, almost no efforts appear to have been made to classify verbs with precisely common conjugation for faster and more effective memorization.

(<http://www.davidappleyard.com/english/strongverbs.htm>).

2.2.1. The Common Current Learning of Irregular Verbs

As English irregular verbs are well known to be unpredictable and teasing, all the efforts done to teach them are based on just memorisation in whatever formats teaching or learning ways are, some of which are shown below (Grabotvski and Mindt, 1995).

List: In the well-known grammar books written by Betty Schrampher Azar, Basic English Grammar, Fundamentals of English Grammar, Understanding and Using English Grammar, English irregular verbs are taught in alphabetical lists. Learners are supposed to memorize them (Azar, 2006: p.22).

Music: Charles I. Kelly and Lawrence E. Kelly teach the basic commonest English irregular verbs through songs at www.manythings.org/repeat/favorites.html. This web site is for people studying English as a Second Language (ESL) or English as a Foreign Language (EFL). There are quizzes, word games, word puzzles, proverbs, slang expressions, anagrams, a random-sentence generator and other computer assisted language learning activities. Even though the primary focus is for ESL, native English speakers may also find some interesting things on this site. This site is non-commercial and has no advertising. TESL/TEFL teachers may want to recommend this site to their students. (<http://www.manythings.org>)

Pictures: Adolfo Bieri teaches all the irregular verbs of the English language, conjugation, pronunciation, translation and examples together with pictures showing their basic meanings at <http://www.theirregularverbs.com> that has been active since 2006. (<http://www.theirregularverbs.com>)

Classification with vowel shift: Appleyard (2009) tries to classify them according to vowel shift to help language learner to memorise them faster and more efficiently at <http://www.davidappleyard.com/english/strongverbs.htm>.

2.3. Brain and Learning

Recently, educators have investigated links between classroom teaching and newly appearing theories about how people learn. Thanks to interesting findings in neuroscience and continual developments in cognitive psychology, new points of views on the human brain and the attendant perceptions and emotions that contribute to learning have been come out. The way the human brain functions seem to be that of a computer- an information processor, creating, storing, and manipulating data, to that of a jungle- a somewhat chaotic, layered world of interwoven, interdependent neurological connections. The human brain research provides rich opportunities for education and help teachers apply lessons from the research to classroom settings. Studies that explore the effects of attitudes and emotions on learning indicate that stress and constant fear, at any age, can prevent the brain's normal circuits. A person's physical and emotional well-being are closely linked to the ability to think and to learn effectively. Emotionally stressful home or school environments are counterproductive to students' attempts to learn. Finding ways to express emotions productively can help students cope with inevitable instances of anger, fear, hurt, and tension in daily life. (<http://www.sedl.org/scimath/compass/v03n02/brain.html>)

2.3.1. What is the human brain?

The findings from the human brain could be very useful for effective educational curricula.

Gardner (1993) believes that the brain has evolved over millions of years to be responsive to different kinds of contents in the world such as language content, musical content, spatial content, numerical content, etc. He also states that the mind is affected by images and pictures, colour and music. A picture is worth a thousand words. The mind easily remembers the faces and places seen and visited before. Colours help the mind to be alert-like red at the traffic lights, to memorise easily and correctly - underlined sentences, post-it notes etc. He reports that music is said to have a great effect on the brain. That is a calming, relaxing and consequently energising effect for perfect preparation for studying. This is not new and has been

known since ancient times by almost all the civilisations in the world. Music is also used for memory failures, impaired reasoning, depression and pain control. Music is connected with all the parts of the brain not with only one part of it. In case of the absence of any communication tool in a damaged brain, music is the one reliable means to communicate. It has been used by Suggestopedia as an essential part of teaching-learning process for many years. It has been proved to make the brain more powerful and alert.

Blakemore (2005) claims that the brain is always used by both animals and humans to learn what to do and how to do it. It is like a computer on which all learning occurs. If the brain system-which directly impacts learning and memory-, is analysed and understood well, we can develop new effective learning-teaching strategies that are going to meet people's needs of all ages in the shortest time possible. According to Blakemore, the brain is very apt to changeable conditions and new information or knowledge, so at any age humans can learn and they never get too old to learn because of a flexible brain until very old age.

Blakemore adds that physical exercises empower brain functions and better mood both in animals and humans. They activate chemical changes in the brain and enhance learning. She also suggests that visual imagery plays an important role to ease and fasten learning. The brain remembers things with their images. Concrete words are more easily remembered than abstract ones as they can be effortlessly visualized. Learners are advised to learn words connecting with one another, not in isolation as the brain is more interested in a context. Why do we not forget the faces we have already seen?

Wolfe (2001) points out that our brain sees things in pictures and understands. Words are just drawers for the brain to visualize things. In fact, we tell someone what we hear and see in words. Again people understand us by means of pictures created by the words come out of our mouths. Why do we not use pictures and sounds to enhance our students' grasping and retention of information? She says "Humans are intensely visual animals". Pictures help us both to retain and increase our

understanding. How easier do you think it is to comprehend the structure of an atom or the operation of an internal combustion engine? With or without a drawing? Imagery, mostly pictures possess easing effects on learning and memory. Why should we not use both visual and audio cortexes of our brain as data are stored there in images and sounds? Music, in any form, whether you are a performer or recipient, is able to stimulate the cognitive, visual, auditory, affective and motor systems. The mental system treating music is firmly interconnected with the brain's other basic functions together with emotion, memory and language as well. It is certain that we easily remember words when they are embedded in music or rhyme, but it is difficult to recall passages in prose. Rhyme and rhythm supply perfect means to keep data that would otherwise be difficult to retain. A happy brain is the key to optimum learning. How can we make it free of tension, stress? What should we feed it with? Are settings and conditions we live by important for a productive brain? Do you think it is wise to educate ignoring the brain? How far can we go with brain-less education?

What seems to be needed is a way of combining brain research with a way of looking at how an individual brain works, and then combining that with pedagogic techniques in the classroom that can fit most learners.

2.3.2. Brain Based Learning

Brain-compatible teaching and learning is one of the hottest and most significant topics in modern education. There has been a longstanding interest among second and foreign language educators in research on language and the brain. Language learning is a natural phenomenon; it occurs even without intervention. By understanding how the brain learns naturally, language teachers may be better able to enhance their effectiveness in the classroom. New evidence suggests that the brain is much more malleable than previously thought. Recent findings indicate that the specialized functions of specific regions of the brain are not fixed at birth but are shaped by experience and learning. To use a computer analogy, we now think that the young brain is like a computer with incredibly sophisticated hardwiring, but no software. The software of the brain, like the software of desktop computers,

harnesses the exceptional processing capacity of the brain in the service of specialized functions, like vision, smell, and language. All individuals have to acquire or develop their own software in order to harness the processing power of the brain with which they are born (Genesee, 2000).

Brain-based or brain-compatible learning theory focuses on concepts that create an opportunity to maximize attainment and retention of information. A key to successful application is for everyone involved in the learning process -online course developers, educators, students- to understand the structure of the brain and consciously focus on learners' needs and styles to evaluate and improve the course format and delivery system. In brain-based learning environments, materials and instruction must be learner-centered and delivered in a manner that is fun, meaningful, and personally enriching (Lucas, 2004).

Jensen (2009) defines that brain based education is the logical operation of a purposeful cluster of principles resulting from neuroscience that explain how our brain functions and should be utilized in the educational framework. He adds that brain-based education is not a magic tool that turns everything into whatever we wish or that solve any teaching-learning problem in no time. He believes that a “one size fits all” brain-based program, model or pack for educational institutes to apply do not exist yet. A brain compatible teacher should be able to understand and adapt these principles to the educational environment in which learners learn. Those involved in education should keep forever updated on continuous professional development. It is certain that stress is an important element in creativity, memory, behaviour and learning. And teachers or educators should intentionally manage these stress factors –increase or decrease them-to create a positive classroom environment.

Wilson (2007) asserts that brain-based learning is an encompassing approach to education established on the way the human brain learns by nature. The structure and functions must be known at different phases of development in the brain-based theory. It supplies teachers are expected to link learning to learners' real life experiences. This style of learning covers the following instructional notions:

mastery learning, learning styles, multiple intelligences, cooperative learning, practical simulations, experiential learning, problem-based learning, movement education.

Caine and Caine (1994) formulated twelve basic Mind/Brain Learning Principles based on the emerging BBL research of the eighties and nineties:

Mind/Brain Learning Principles

1. All learning is physiological.
2. The Brain-Mind is social.
3. The search for meaning is innate.
4. The search for meaning occurs through patterning.
5. Emotions are critical to patterning.
6. The Brain-Mind processes parts and wholes simultaneously.
7. Learning involves both focused attention and peripheral perception.
8. Learning always involves conscious and unconscious processes.
9. There are at least two approaches to memory: archiving individual facts or skills or making sense of experience.
10. Learning is developmental.
11. Complex learning is enhanced by challenge and inhibited by threat associated with helplessness.
12. Each brain is uniquely organized

These principles provide interactive educational components to be applied in the classroom to increase learning. For complex learning to occur, Caine and Caine (1994) have identified three conditions:

1-Relaxed alertness- a low threat, high challenge state of mind: Through classical music, fragrance, dimmed lights, a relaxed learning environment is formed. All negative emotions such as fear, stress, and anxiety are removed from the learning setting. Senses are stimulated for better learning. Every student is admitted with his/her different learning styles, capabilities and disabilities.

2-Orchestrated immersion- a multiple, complex, authentic experience: Classrooms are turned into a real life setting for primary school pupils. For older students, learning places are visited and they learn by observing and doing.

3-Active processing- making meaning through experience processing: Students actively work on information to reinforce and digest it. Prior learning is attached to new information.

Jensen and Johnson (1994) claim that one of the key beliefs of brain-based education is that attention follows emotion, and both music and art often tap into the emotional areas and thus are natural conduits for remembering and connecting information. They also suggest that music can lower stress, boost learning when used three different ways; as a carrier - using melody or beat to encode content, as arousal - to calm down or energize, as a primer - to prepare specific pathways for learning content impacts the immune system, and is an energy source for the brain.

Under the title of “Whistle While You Work” Jensen collected 19 MP3 files via download on the internet, specially produced to activate the serotonergic (serotonin) system. Serotonin is a common neurotransmitter that helps us feel pleasant and cheerful. He advises educators to play this music in the background when they would like to reduce stress, but encourage productivity. He also claims that all of these specially-produced memorable selections are 100% soothing and easy-to-listen to audio gems. He is certain that learners will get positive, enjoyable listening tracks that boost learning and productivity. He also adds that students will ask for these catchy tunes again and again.

To sum up, brain-based or brain-compatible instruction requires instructors to understand how the brain works and thus, design instruction with that information in mind. Teachers should be encouraged to combine knowledge about their profession with findings from brain research to create learner-centered environments – whether online or in physical classrooms. Applying brain research to instructional design can result in the practice of brain-compatible instruction instead of brain-antagonistic instruction (Genesee, 2000).

2.3.3. Learning and Memory

Learning refers to the process of acquiring new information, whereas memory refers to the retention of that information so that it can be retrieved at a later time. Learning and memory are so central to our daily lives that disruption in these functions can interrupt our most routine activities. The centrality of learning and memory to our daily lives has led to intense analysis by psychologists and neurobiologists (Byrne, 2003).

Rohatgi (1998), states that learning and memory are not unitary processes. Learning is the process by which new information is acquired; memory is the process by which that knowledge is retained. Learning can be divided into two types:

1-Explicit memory is the conscious acquisition of knowledge about people, places and things. It occurs in the highly developed vertebrate brain, mainly in the cephalic structure.

2-Implicit memory is the non conscious learning of motor skills and other tasks. It does not depend on the temporal lobe, but involves the sensory, motor associated pathways in the expression of learning process. This type of memory can be studied in higher invertebrates whereas explicit learning is only studied in mammals.

Buzan (1986) points out that there are two underlying principles that ensure perfect memory: imagination and association. Most of us are actively discouraged from using our imaginative abilities, and consequently learn very little about the nature of mental association.

In order to remember well, you must include in your associated and linked mental landscape the following:

Table 1: Buzan's perfect Memory

Colour	colours alone can improve memory by as much as 50 %
Imagination	imagination is the powerhouse of your memory
Rhythm	more rhythm and its variation in your mental picture
Movement	moving objects are usually remembered better
The Senses	tasting, touching, smelling, seeing, hearing
Sex	magnificent daydreaming ability
Sequencing / Ordering	mind needs order and sequence
Number	for easy ordering and sequencing
Dimension	right-brain ability to see your memory images in 3-D

Buzan (1986) shows the importance of using the visual and auditory senses to enhance learning. Whatever event comes to mind, you remember it not in words but in images and sounds. When you describe the event to someone else, you use words of course, but what you are describing is what you are seeing and hearing inside your head. He also explains that teachers can find many ways for using music to enhance both the classroom environment and student learning. Certain types of music affect brain wave patterns, resulting in a slowing down or speeding up of brain activity, so music can be a powerful approach for integrating various curricular areas. Rhyme and rhythm provide great mechanisms for storing information that would otherwise be difficult to retain. As mentioned earlier, information embedded in music or rhyme is much easier to recall than the same information in prose.

Wolfe (2001), states that a picture is worth at least 10,000 words. Humans are intensely visual animals. The eyes contain nearly 70 percent of the body's sensory receptors and send millions of signals every second along the optic nerves to the visual processing centres of the brain. It is not surprising that the visual components of a memory are so robust. Although each of us has the ability to process kinaesthetic and auditory information, we take in more information visually than through any of the other senses. We never forget a face we saw before. Not only are visuals powerful retention aids, but they also serve to increase understanding. Imagine trying to comprehend the structure of an atom without a drawing or to understand the

operation of an internal combustion engine without an accompanying diagram. The ability to transform thoughts into images is often viewed as a test of true understanding.

According to Svantesson (2004) the human brain is very different from a computer in that specific details can be reached following certain hierarchical paths. The computer gives what it is asked for through its memory whereas the brain functions in a totally dissimilar way. Certain sectors of the brain's data dealing imply images, feelings, smells, colours and associations of diverse types. Sectors and wholes may interact to form each other. Human beings usually memorise in images turning into words in the later processing. Memories may be divided and retained as components of a complicated situation. However, they become a whole again as soon as they are retrieved.

Svantesson adds that feelings have a great impact on learning. Happiness has positive effect, while boredom has a negative one on learning. Bored learners forget faster and need to review oftener. That is why motivation is vital in learning. He claims that there are various types of memory that help significantly to remember things. They are the ones concerning senses after which they are called. A few examples of them are below:

1. Visual – you remember things you see
2. Auditory – you remember things you hear
3. Kinaesthetic – you remember movements and feelings
4. Tactile – you remember what you touch with your hands
5. Taste – you remember flavors
6. Smell – you remember scents and smells

To his view, the brain power is practically limitless. The human memory can function optimally with the von Restorff effect that assists the human memory by:

- 1-Overstating what is wished to remember
- 2- Utilising coloured pens for highlighting what is read or written down
- 3- Associations to the words that are being learned

4- Using jokes, imagery, striking examples to create distinctive pictures in the brain.

Having fun and appreciating what is done makes learning easier. Motivation and a positive attitude are two effective factors on our ability (Svantesson, 2004).

Walsh (2005) explains how the human memory works by pointing out that, by means of sight, hearing smelling, tasting and touch sensory organs, and data comes from the world outside into the human brain. Memory is merely ways of storing and recalling things that have been sensed. Within each second, ten millions of bits of data are taken in through eyes, one million bits by the skin, and one-hundred thousand bits by the ears. To his findings, images, sounds, keywords, and concept maps are all very helpful to connect new input with the old one for better links between data. Revising is a crucial component for memory, which must be done at certain intervals after absorbing the data if it is wanted to efficient. That may be one hour, one day, one week, and six months.

Another view of his is that “a greater variety of input streams from eyes, ears, tactile, and emotion allow for more pathways to exist for dynamic reconstruction, thus creating richer memory. According to him, there are two kinds of stresses that affect learning remarkably: healthy stress- called a challenge and unhealthy stress- too low or too high. He points out that the body releases chemicals such as adrenaline and nor epinephrine that improve learning through augmenting motivation, refining human perceptions, and even empowering the human body. As for unhealthy stress, he says that it depress all over the body by releasing cortisol, the survival hormone causing over whelming stress that has detrimental effect on learning. He adds that “it is the management of emotions that gives learners greater command over their learning”.

2.4. Types of Learning and Learners

The time of organizing a lesson and teaching to a class as a whole is over. Teachers are now forced to focus on each student as an individual. At first, this

concept can be burdensome for teachers. Nevertheless, after some practice it begins to come natural to teachers during a lesson or lesson planning. Teachers ought to try to meet the needs of all the learners in their classroom. Before planning a lesson, teachers need to plan activities that can address each and every learning type. Not all learners learn the same way. They have different ways of understanding and processing new information that is given to them. Consequently, teachers should always try to plan for three main types of learners: auditory, visual, and kinaesthetic. Some students learn best through listening to directions or following orally given directions. They are better at grasping words. They are thought to be auditory learners. Others learn best by watching. Instead of listening to directions, they need to see demonstrations. These learners are thought to be visual learners. Other ones are best at learning by taking part into activities. They perform best when they experience and try something rather than watch it being done. Furthermore, they are better at taking a leading role to do an activity rather than listen to how it should be done. They are kinaesthetic learners. Some learners are a lot stronger in one area of learning. Others are equal in two areas. Some others can learn easily using any of the three types of instruction. When planning their lessons, teachers should try to include all three methods. They should use audio-visual elements, and hands on activities. If a teacher takes into consideration all three types of learning more students can be reached during one lesson and the need for re-teaching can be less (Newton, 2007).

Felder (2007) states that students learn in a variety of ways: by seeing and hearing, working alone and in groups, reasoning logically and intuitively, memorizing and visualizing and modelling. Teaching methods also vary: some instructors lecture, others demonstrate or discuss; some focus on principles and others on applications; some emphasize memory and others understanding. How much students learn in a class depends among other things on the match between their learning style preferences and the instructor's teaching style. This interactive presentation defines different learning styles, explores the consequences of mismatches between learning and teaching styles, and offers ideas for reaching students with a wider variety of learning styles than are reached with traditional teaching methods.

Table 2: Learning styles. (Felder 2007)

Learning Styles	
Visual/Spatial	Learning through seeing
Verbal/Linguistic	Learning through hearing
Body/Kinaesthetic	Learning through moving, doing, and touching
Logical/Mathematical	Learning through numbers
Musical/Rhythmic	Learning through music
Intrapersonal	Learning through one's inner emotions

Gardner (1993) believes that the brain has evolved over millions of years to be responsive to different kinds of contents in the world like language content, musical content, spatial content, numerical content, etc. And all of us have computers that respond to those kinds of contents. But the strength or weakness of one computer doesn't particularly correlate with the other computer.

Table 3: Gardner's Multiple Intelligences

Gardner's Multiple Intelligences	
Visual/Spatial Intelligence	To think in pictures
Verbal/Linguistic Intelligence	highly developed auditory skills
Logical/Mathematical Intelligence	To think in logical and numerical patterns
Body/Kinaesthetic Intelligence	To express oneself through movement
Musical/Rhythmic Intelligence	To think in sounds, rhythms, and patterns
Interpersonal Intelligence	empathy, encourage cooperation, communication channels with others
Intrapersonal Intelligence	inner feelings, strengths and weaknesses, dreams, social relationships

As seen in the tables 3 and 4, the factors affecting the human brain seem to be very important in language learning.

Table 4: Felder’s Types of Learners

Felder’s Types of Learners		
Sensory	↔	Intuitive
Sensory learners prefer concrete, practical, and procedural information. They look for the facts.		Intuitive learners prefer conceptual, innovative, and theoretical information. They look for the meaning.
Visual	↔	Verbal
Visual learners prefer graphs, pictures, and diagrams. They look for visual representations of information.		Verbal learners prefer to hear or read information. They look for explanations with words.
Active	↔	Reflective
Active learners prefer to manipulate objects, do physical experiments, and learn by trying. They enjoy working in groups to figure out problems.		Reflective learners prefer to think things through, to evaluate options, and learn by analysis. They enjoy figuring out a problem on their own.
Sequential	↔	Global
Sequential learners prefer to have information presented linearly and in an orderly manner. They put together the details in order to understand the big picture emerges.		Global learners prefer a holistic and systematic approach. They see the big picture first and then fill in the details.

In conclusion, it can be said that people learn in various ways. What is best for one person will be different for another. Any information can be presented to people in two or three different ways so that they can choose how they receive the information for their individual needs.

The different ways of learning include visual, auditory, kinaesthetic, and tactile. A visual learner will search for ways to learn and take in information by reading and watching videos. They want to see it so that their brain can process and remember the information. The visual learner will look at you when you are talking to them. An auditory learner wants to hear the information on a CD or on their mp3 player. They form their own pictures in their mind while they are listening. These people will generally be looking down or away from you when you talk to them, leading you to believe they may not be paying attention to you. They are just processing what they hear auditorily so that they can process it. The kinaesthetic learner wants to move around while they learn. They process information best when they can move their bodies. Their brains are wired for movement. The tactile learner will want to print out an article or e-book or hold a book in their hands when learning. By touching the information the connection is made in their brain to retain the information (Smith, 2009)

To sum up, you do not need to memorize the different learning styles or fit learners into neat categories. Most of us fall into multiple categories. This information is presented to demonstrate that people learn in different ways, which will assist you in being sure that you present material in various ways to accommodate all learners. If something seems not to work, try a different style.

(<http://www.learning-styles-online.com/overview/>)

CHAPTER 3

METHODOLOGY

3.1. Introduction

This is a descriptive research that tries to find out answers to the research questions. It interprets and assesses the evidence from research studies in a descriptive way to reach a result with internal and external validity, by using mostly verbal accounts and dealing with numbers to a minor degree as Denzin and Lincoln (1988) suggest:

The word *qualitative* implies an emphasis on processes and meanings that are not rigorously examined or measured (if measured at all), in terms of quantity, amount, intensity, or frequency. Qualitative researchers stress the socially constructed nature of reality, the intimate relationship between the researcher and what is studied, and the situational constraints that shape inquiry. Such researchers emphasize the value-laden nature of inquiry. They seek answers to questions that stress how social experience is created and given meaning (p.8).

This research examines the human brain, brain based learning, CALL, and English irregular verbs in order to create and suggest a new learning and teaching way of English irregular verbs. In this context, the following research questions have been formulated to guide the study:

1-How have ELT teachers of Sıtkı Koçman School of Foreign Languages been teaching the past simple and past participle forms of English irregular verbs?

2-What do ELT teachers of Sıtkı Koçman School of Foreign Languages think about the CALL materials presented in the research to teach English irregular verbs?

To answer these two different questions above, the study articulated the following points related to the participants: graduation field, length of experience, academic degree, frequency of in-service training, frequency of computer use for educational purpose or else, experience of CALL. It was administered in two parts, to discover how the ELT teachers have been teaching the preterits and past participles of English irregular verbs and what they think about CALL materials designed for this study to teach commonly used English irregular verbs.

3.2. The participants of the study

In Table 5 the ELT teachers of Sitkí Koçman School of Foreign languages are classified under three points concerning their professional backgrounds.

Table 5: The Participants of the study

The participants of the study		
Departments	Degree	Number
English Language Teaching	Bachelor's Degree	15
	Master's Degree	10
	Doctorate	
English Language and Literature	Bachelor's Degree	10
	Master's Degree	5
	Doctorate	
		Total: 40

Out of sixty-five ELT teachers at Sitkí Koçman School of Foreign Languages, just forty ones took part in this research. All of them were experienced teachers, at least five, at most 26 years of experience in their profession. Out of forty ELT teachers replying to the email to which a questionnaire was attached, twenty-five graduated from English Language Teaching, while the other fifteen graduated from English Language and Literature at different universities in Turkey. The number of the participants with a master's degree was fifteen, ten of whom graduated from English Language Teaching, five of whom graduated from English Language and Literature, and that of those with a bachelor's degree was twenty-five.

The following table shows the number, length of experience, and frequency of CALL use of the participants together with their percentage.

Table 6: Years of experiences and use of CALL.

Number of ELT Teachers	Length of Experience / Year(s)	Use of CALL Frequency	
	Percentage		
14	%35	5 to 9	Rarely
10	%25	10 to 15	Never
10	%25	16 to 20	Never
6	%15	20 to 26	Never

Below are the data about the participants' use of computer for educational purposes in their classes including the duration of their professional experience.

Table 7: Years of experiences and Use of Computers in classes.

Number of ELT Teachers	Length of Experience / Year(s)	Use of Computers in classes Frequency	
	Percentage		
14	% 35	5 to 9	very rarely
10	% 25	10 to 15	Never
10	% 25	16 to 20	Never
6	% 0	20 to 26	Never

Here is the table indicating the frequency of the ELT teachers' participations in the in-service training home or away.

Table 8: Participation in on- the-job training.

In-service training	Number of participants	Frequency
Home	40	Always
Out of town	5	Twice or three times a year
Abroad	8	Once a year

On-the-job training is one of the best training methods because it is planned, organized, and conducted at the employee's worksite. It will generally be the primary method used for broadening employee skills and increasing productivity. It is

particularly appropriate for developing proficiency skills unique to an employee's job - especially jobs that are relatively easy to learn and require locally-owned equipment and facilities.

3.3. Data Collection

In the data collection process, several instruments were used.

3.3.1. Instruments

The semi-structured reflective questionnaire was divided into two parts. The first part contained two questions inquiring about how ELT teachers had been teaching English irregular verbs and whether they knew about any other possible ways to teach English irregular verbs than theirs.

The first part of the questionnaire (see Appendix) was emailed to sixty-five ELT teachers to gather data. Out of sixty-five ELT teachers, only forty ones replied to the email with an attachment of the relevant questionnaire containing the following open-ended research questions:

1-How have you been teaching English irregular verbs?

2-What do you think about the alternative methods and techniques of teaching English irregular verbs?

The prepared CALL materials were uploaded and published on the official website of the Sitk1 Koçman School of Foreign Languages;
<http://www.mu.edu.tr/departments/yabancidiller/call.html> after they were tested if they worked without any failure on the web. On the same page were a questionnaire form to be filled out and the recipient e-mail address for the participants to send their views about the CALL applications dedicated to learning and teaching English irregular verbs.

Three weeks after the first part, the second one was emailed to the same participants and they were kindly asked to click on the link to use and evaluate the CALL materials arranged in three parts; presentation, exercises, and testing on the following web page of their school;

<http://www.mu.edu.tr/departments/yabancidiller/call.html> and express their opinions, taking the learning and teaching environment into consideration, about:

- Whether they were feasible / practical.
- Whether they could make any contributions to learning.
- Whether they would have any effects on the retention of knowledge.
- Whether they would make any contributions to other dimensions of learning and teaching environment.
- Whether they would like to design and use those kinds of materials in classes.

Activities

- Animations of commonly used English irregular verbs.
- Gap-fill exercise.
- Look at the pictures and fill the gaps.
- Reorder the sentences of the tale.
- English Irregular Verbs.
- Crossword: Find the second forms of the given verbs.
- Word Search Puzzle: Find the second forms of the given verbs.
- Testing: Read the sentences and fill in the blanks appropriately.

In the creation of CALL materials several authoring programs were used; Wondershare Quiz Creator, Hot Potatoes, Crossword Forge, Teaching Template, MP3 Joiner, Selteco Alligator Flash Designer. All of these digital materials were formed on the basis of the natural functions of the human brain which is considered as the central process unit of any new data received. Accordingly, images, music, and colours were used to design them except a semi-structured reflective questionnaire. Animation of irregular verbs, designed exercises of irregular verbs, a test of forty-four questions was used.

3.3.1.1. The semi-structured reflective questionnaire

It has two research questions:

1-How have the ELT teachers been teaching the past simple and past participle forms of English irregular verbs?

2-What do they think about the CALL materials designed to teach English irregular verbs?

The second research question contained some items about the CALL materials designed for the purpose of learning and teaching some commonly used English irregular verbs. Those items investigated, within learning and teaching settings, if the CALL materials were:

- Feasible/practical.
- Contributive to learning.
- Efficient in retention.
- Contributive to other dimensions of learning and teaching environment.
- Interesting enough to encourage the participants to design and use such materials.

The semi-structured reflective questionnaire also has such items about the participants' professional backgrounds as graduation field, length of teaching, academic degree, frequency of involvement in on-the-job activities, frequency of computer use in and outside classes, experience of CALL in classes.

3.3.1.2. Computerised Animation about Irregular Verbs

All the four animations, one with twelve, the others with eighteen commonly used irregular verbs were published on the website of Sıtkı Koçman School of Foreign Languages so that the participants could access them. What attracted the participants' attention most, was music sung by Charles Kelly, at the colourful background dancing young people, one girl, two young boys, to the rhythm of the music. Colours, music, dancing people at the same age as target learners, pictures coming in and going out here and there, made the whole setting lively. These were produced by means of Selteco Alligator Flash Designer that creates Flash websites, presentations, slide shows, menus, banners, buttons and online applications.

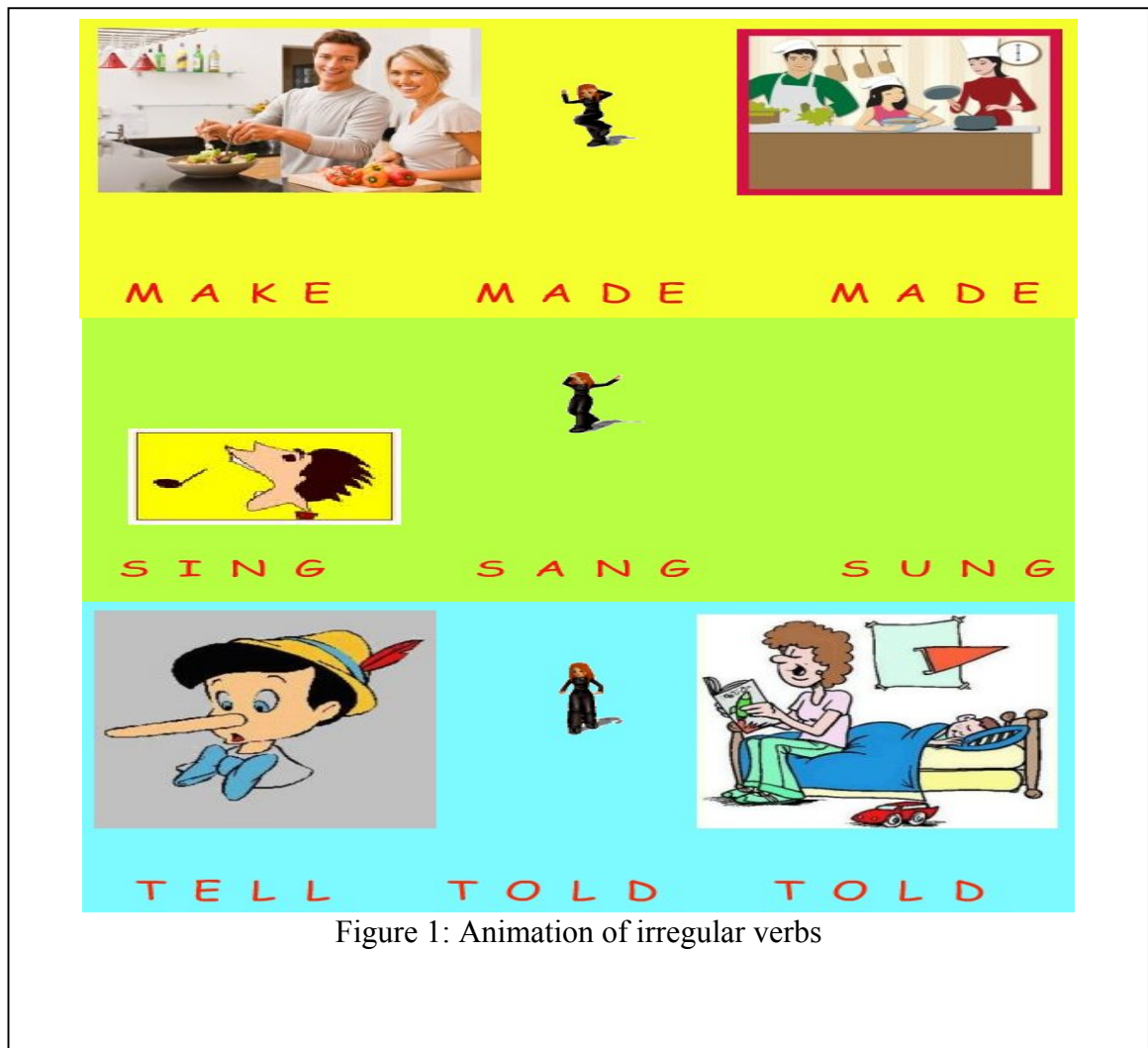


Figure 1: Animation of irregular verbs

3.3.1.3. Computerised Exercises of Irregular Verbs

The aim of the work is to give students a mastery of the fundamental facts of English irregular verbs in contexts, and to lead them to use that knowledge in the interpretation of past or completed events and in the expression of their own thoughts. The extensive set of exercises here aim to enable students to speak the language using the same past simple forms of irregular verbs in a repeated way as if they were asked to listen first, next retell the story through pictures, then sequence the sentences in the correct order to form the story, and finally tell the class about the story by heart. Through these CALL materials, students are also encouraged to work

outside class and alone for non-stop learning with fun and high motivation in a stress-less teaching-learning environment.



Gap-fill exercise 29:48

Fill in all the gaps, then press "Check" to check your answers. Use the "Hint" button to get a free letter if an answer is giving you trouble. You can also click on the "[?]" button to get a clue. Note that you will lose points if you ask for hints or clues!

Once upon a time, there [?] a boy called Jack. He lived with his mother. They went [?] very poor. All they [?] was a cow. One morning, Jack's mother [?] Jack to take their cow to market and sell her. On the way, Jack [?] a man. He [?] Jack some magic beans for the cow. Jack [?] the beans and [?] back home. When Jack's mother [?] the beans she [?] very angry. She [?] the beans out of the window. The next morning, Jack looked out of the window. There [?] a giant beanstalk. He [?] outside and started to climb the beanstalk. He climbed up to the sky through the clouds. Jack [?] a beautiful castle. He [?] inside. Jack [?] a voice. "Fee, Fi, Fo, Fum!" Jack [?] into a cupboard. An enormous giant [?] into the room and [?] down. On the table, there [?] a hen and a golden harp.

"Lay!" [?] the giant. The hen [?] an egg - it was [?] of gold. "Sing!" [?] the giant. The harp [?] to sing. Soon the giant [?] asleep. Jack jumped out of the cupboard. He [?] the hen and the harp. Suddenly, the harp [?], "Help, master!" The giant [?] up, and shouted, "Fee, Fi, Fo, Fum!" Jack [?] and started climbing down the beanstalk. The giant [?] down after him. Jack shouted, "Mother! Help!" Jack's mother [?] an axe and chopped down the beanstalk. The giant [?] and crashed to the ground. Nobody ever [?] him again. With the golden eggs and the magic harp, Jack and his mother lived happily ever after.

Figure 2: Jack and the Beanstalk

Listening: In this part, there is a picture of the tale and a learner controlled media player to listen to the tale. Learners are asked to listen and fill in the blanks with what they will hear- the past simple forms of twenty irregular verbs. The instruction of this part is like that:

Fill in all the gaps, then press "Check" to check your answers. Use the "Hint" button to get a free letter if an answer is giving you trouble. You can also click on the "[?]" button to get a clue. Note that you will lose points if you ask for hints or clues!


Commonly Used English Irregular Verbs

Look at the pictures and fill the gaps

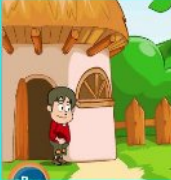

28:56

Fill in all the gaps, then press "Check" to check your answers. Use the "Hint" button to get a free letter if an answer is giving you trouble. You can also click on the "[?]" button to get a clue. Note that you will lose points if you ask for hints or clues!




began came came fell gave had heard laid made met ran ran said said sang sat
 saw saw saw threw told took took took was was was went went went were woke



Once upon a time there a boy called Jack. He lived with his mother. They very poor. All they was a cow.

He outside and started to climb the beanstalk. He climbed up to the sky through the clouds.

Jack a beautiful castle. He inside.

Figure 3: Retelling the story

Retelling: In this part, there are thirty colourful pictures summarizing the tale. Learners are asked to look at the pictures and retell the tale by filling in the blanks with the appropriate verb forms among the given choices. This part has the same instruction as the “listening part”.

Wondershare Quiz Creator exercises: This quiz and test authoring software builds interactive Flash-based quizzes and assessments easily and get results report effortlessly.

Reorder the sentences of the tale.

Reorder the sentences of the tale.

00:29:23 remaining

Question 1 out of 7 \ 10 pts \ Moderate

1. Put them in the right order. ▢

1. He lived with his mother.
2. Once upon a time there was a boy called Jack.
3. All they had was a cow.
4. They were very poor.



Submit Next

Figure 4: Sequencing the sentences of the story

Sequencing: On the first page, exercise doers must write their user names, emails, and user IDs so that their exercise giver can know about the results through email instantly. It contains thirty-two sentences grouped in seven parts. Each part has four to six sentences played. Learners are asked to put them in order just as they hear in each part with a picture of the tale. Background colours are red and yellow because they are said to stimulate learners to learn actively by Jensen in his book “Teaching With the Brain in Mind”. Test taker can print the current page. All the parts can be seen on the right side with one click. Under the information button, the author’s name, email, and personal information can be read. All parts must be completed for the score results to be seen.

Testing: There are fifty-four multiple-choice questions to be answered in thirty minutes.

Each question has two pictures relevant to the meaning of the irregular verb and each irregular verb is pronounced to help the test taker. Under each question, there are just three choices to remind test takers of the three forms of English irregular verbs. Test takers are expected to know how to use all the three forms in a correct way. Next to each question, there is information button with an initial “I” that shows how the other irregular verbs of that group are conjugated. On the first page, exercise doers must write their user names, emails, and user IDs so that their exercise giver can know about the results through email instantly. Test taker can print the current page. All the parts can be seen on the right side with one click. Under the information button, the author’s name, email, and personal information can be read. All parts must be completed for the score results to be seen.

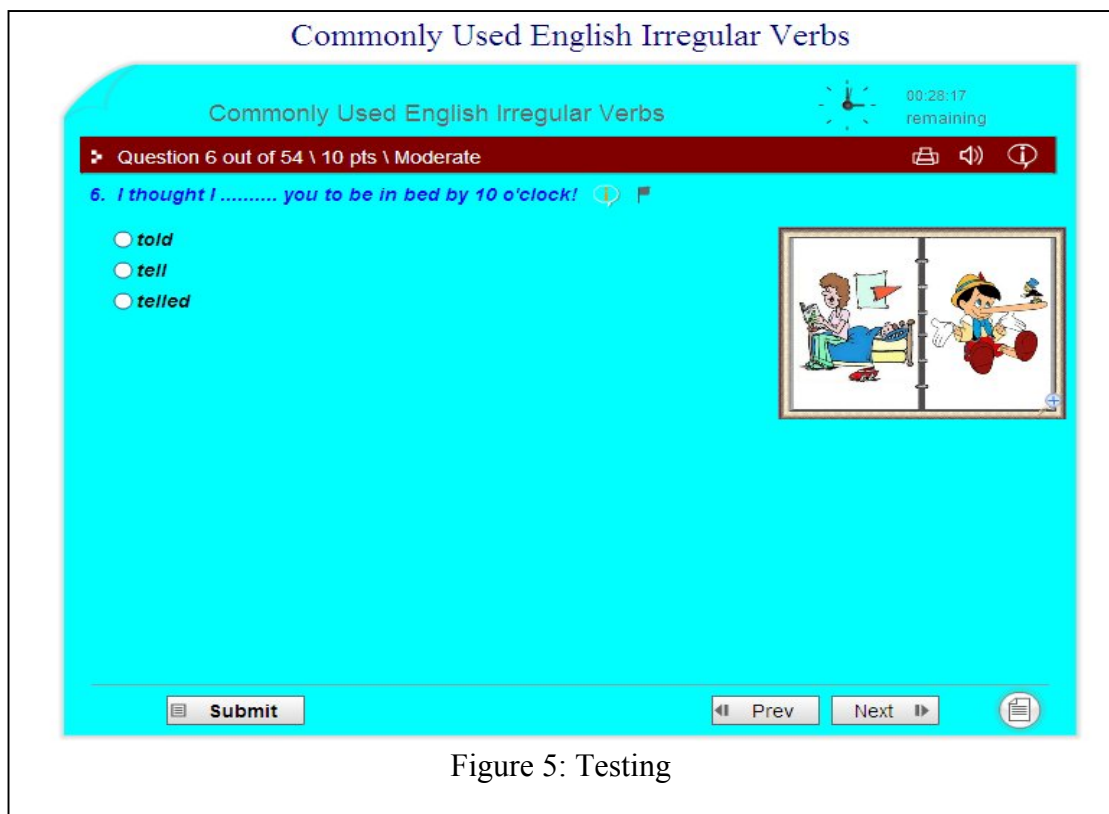


Figure 5: Testing

varied and timesaving set of nine authoring tools to help you create interactive, web-based exercises, tests and quizzes - including Multiple Choice, Question Time, Gap Text (based on the Cloze test procedure), Energy Saver (fill in the missing letters), In Other Words, What's Your Opinion?, Flashcards, Mastermind and Playtime.

Question

1
2
3
4
5
6
7
8
9
10
11
12
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14
15
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17
18

MENGLISH MIRREGULAR VERBS.

1. if teach taught taught, then reach-?



raught raught
 reached reached

Question

1
2
3
4
5
6
7
8
9
10
11
12
13

2. if ring rang rung, then bring-?



brought brought
 brang brung

Figure 6: Menglish Mirregular Verbs

Menglish mirregular verbs: These are to show the nonsense or illogical state of irregular verb existence or rules. They are thought to enable students to learn through contrast discrimination. They are completely imaginary. It has twenty questions with two choices, one correct existing verb form, the other invented incorrect one. Contextually correct answers get a loud funny laugh, the others get a “boo” sound even if they are truthfully correct. It includes a young girl’s picture as if she were saying “I do not hear. Say again!” and another funny picture of a man as reminders of the irregular verbs.

Crossword Forge exercises: It can now turn your puzzles into interactive web pages. The puzzles are intuitive to use and include eye-catching animations that players will be sure to love.

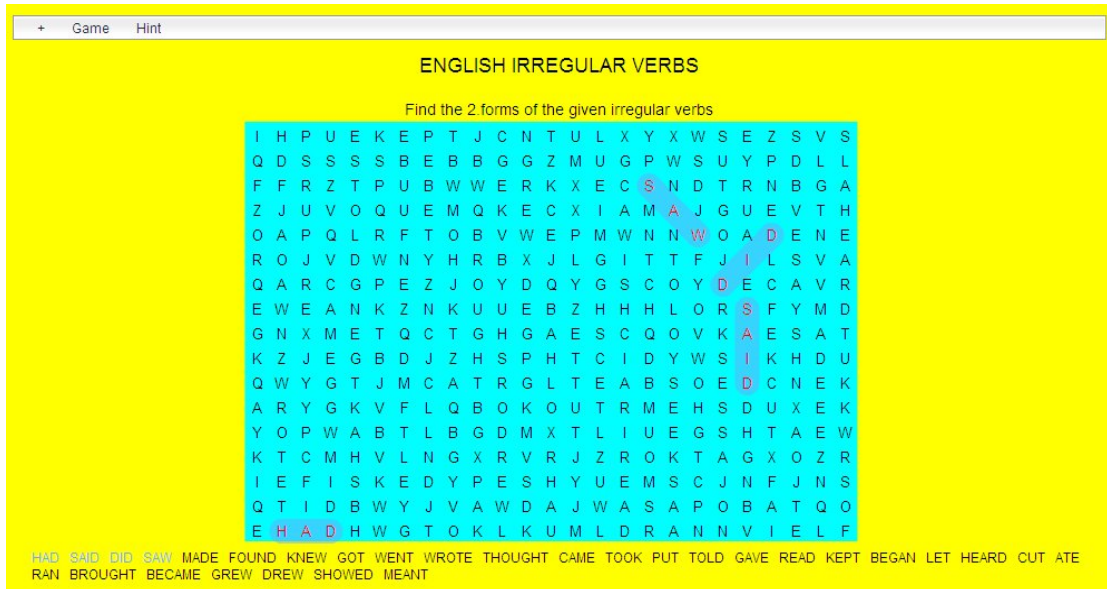


Figure 7: Word search

Word Search: It contains thirty irregular verbs for their second forms to be found by the user. The page background is yellow and that of the verbs is light blue. It has "print, restart, hint" buttons. When you find a verb, it changes colours.

Crossword: It has twenty six irregular verbs. It shows the first form of these irregular verbs and asks the user to find their past simple forms. It is colourful.

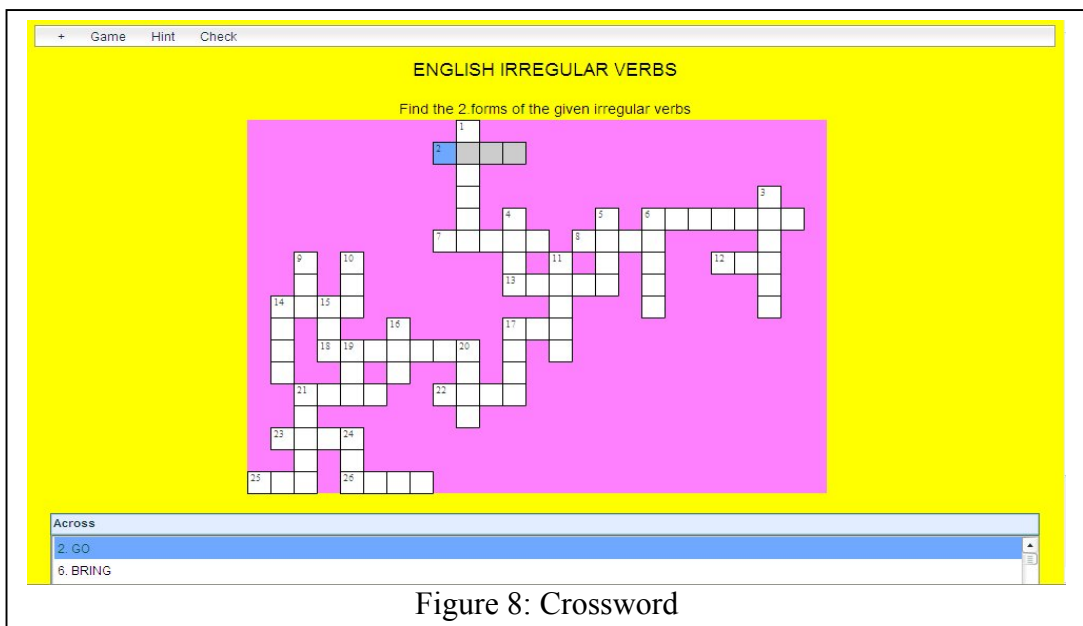


Figure 8: Crossword

3.3.2.Procedures

There were four stages to form and carry out the procedures of the study. First, CALL materials were designed and checked whether or not they run properly both on a computer and on the web. After they passed quality control for web hosting, they were uploaded and published. Second, the first part of the semi-structured reflective questionnaire was e-mailed to sixty-five ELT teachers to find out their ways of teaching irregular verbs and views about any other alternative teaching methods or approaches. Third, the second part of the questionnaire was e-mailed to the same teachers to collect their opinions about the CALL materials created to teach and learn English irregular verbs. Finally, the data obtained from the two parts of the questionnaire were analysed to reach the results of the research.

3.3.2.1 Production of the animation

Depending on the data about the human brain, brain based learning, learning styles, and learner types in the literature review, a combination of music, pictures and colours was accomplished. The pictures were googled and downloaded from <http://images.google.com.tr/>. The irregular verb chants were downloaded from <http://www.manythings.org/repeat>.

Selteco Alligator Flash Designer program was used to make a flash animation of that combination. Sixty-six commonly used English irregular verbs were animated in four parts just as they were chanted by Charles Kelly; the first part containing twelve, the others containing eighteen each. They were matched with the pictures and chants on a changeable background on which two dancing animated boys and a dancing animated young girl were. They appear to dance on the background with the relevant picture and irregular verb forms; base, past simple, and past participle. The dancing animated characters are the same age as the target learners. The animation begins with an interface on which there is some information about the irregular verb chant and animation designer.

3.3.2.2 Exercise designing

For the exercises related to irregular verbs to be created, four authoring programs, Wondeshare Quiz Creator, Teaching Template, Crossword Forge Live, and Hot Potatoes were used for various purposes. The exercises were prepared keeping in mind the effects of the three essential factors such as music, pictures, and colours on any type of learners. Mainly the following types of exercises were produced; crosswords and word search puzzles fill in the blanks, multiple choices, listening, sequencing, and retelling. In listening, one is asked to choose one of the three forms of the verb that is heard. In writing one is asked to remember and write the verb associated by the picture looked at. Crosswords and Word Search puzzles were also designed. The advantage of all these exercises is that they all can be applicable anytime, anywhere in any form; on pc, web based accessible twenty-four hours, mass emailing to learners with the score results back to the sender and so on. And a very interesting exercise based upon imaginary past simple and past participle forms of well known irregular verbs was added under the title of Menglish Mirregular verbs to show the illogical cases of English irregular verbs as claimed by McGovern (2003).

3.3.2.3 Testing part

Apart from the animation and different exercises of the irregular verbs, a test of fifty-four questions was designed with the pronunciation of the verbs, their categorised conjugations according to vowel shift, and pictures related to their meanings. The irregular verbs were contextualized by various sentences that need the base, preterit, and past participle forms of the relevant verb. The number of multiple choice items under each sentence was three so that test takers could only focus on the three forms of the irregular verbs.

3.3.2.4 Publishing the CALL materials

After the production, all these materials were published on the website at

<http://www.mu.edu.tr/departments/yabancidiller/call.html> in three parts:

Table 9: Publishing the CALL materials on the internet

Computer Assisted Teaching of Past Simple and Past Participle Forms of English Irregular Verbs		
PRESENTATION	PRACTICE	TESTING
Part 1	Listening	Test 1
Part 2	Retelling	
Part 3	Sequencing	
Part 4	Menglish Mirregular Verbs	
	Crossword	
	Word Search Puzzle	

The CALL materials created for this study were presented in three parts and in three stages as seen in the table above. In the first part, the participants are asked to watch sixty-six commonly used English irregular verbs. In the second one, they are expected to do six different exercises in various formats about irregular verbs. In the last part, there is a test of fifty-four multiple choice questions with their pronunciations and relevant pictures to measure to what extent test takers can learn the subject.

3.4. Data Analysis

All the replies to the first part of the questionnaire were analysed by classifying the answers to the two questions of the questionnaire;

- Ways of teaching.
- Alternative methods and techniques.

When categorized, the responses to the first question of the questionnaire were divided into three main groups;

- Memorisation from the alphabetical list.
- Explicit grammatical explanation.

- Course book instructions and activities.

The replies to the second part of the questionnaire provided data about the participants' professional backgrounds such as;

- graduation field
- length of experience
- use of CALL
- use of computer in classes

When grouped according to their years of experience, only the participants with 5 to 9 years of experience used very little web-based CALL materials. What they called CALL was "Tense Buster" at <http://140.130.1.207/clarity/tensebuster> provided by Cambridge course book publisher for the purpose of supporting the students buying its course books in English verbs and tenses. Supervised by a teacher, students met in the computer room of the school once a week to visit the link for fifty minutes, one lesson hour so that they could learn and understand English verbs and tenses.

The responses to the question of "how often you participate in in-service trainings" show that all the participants are regularly involved in all the on the job courses at their working place, Sıtkı Koçman School of Foreign Languages, five of whom follow such professional activities out of town on behalf of their school funding all their expenses, organised by other Turkish universities, but not very often, twice or three times a year. They also indicate that eight participants, apart from in-service courses at their school, have been sent to England by means of the school management's own efforts.

Another significant point from the table 7 is that young participants use computers in classes, while the old ones never use them. It can be said that the young participants are more knowledgeable about and familiar with the computer as the findings of Aşkar (2003) point out that "teachers of four to five-year experience are more inclined to use computers than those of twenty-year experience are." (www.bto305.hacettepe.edu.tr/2003guz/.../egitimde_tek_kullanimi.pdf).

Their opinions on the CALL materials prepared for this research, in terms of;

- feasibility/practicality
- contributions to learning
- effects on the retention
- contributions to other dimensions of learning

CHAPTER 4

RESULTS AND DISCUSSION

The participants have been asked two research questions concerning the ways they have been teaching English irregular verbs and what they think about the CALL materials of this study. The responses have been collected and analysed.

1-How have you been teaching English irregular verbs?

The ways ELT teachers have been teaching English irregular verbs in classes are shown in Table 10.

Table 10: Ways of teaching irregular verbs.

Ways of teaching	Number of ELT teachers	Frequency
Memorisation from the list	10	25 %
Explicit Grammar Explanation	10	25 %
Course Book Units	20	50 %
	Total: 40	100 %

The responses to this question show that 25 % of the participants have been teaching English irregular verbs through alphabetical lists ready on the back page of any course book or grammar book, while 25 % of them have been using the board to explain them explicitly in terms of vowel shift, same forms, same spellings but different pronunciation, being used both regular and irregular. The 50 % of them have been using only their course books and doing step by step all the relevant activities such as exercises of various types, bingo games in the book.

Here are some statements of the participants about their ways of teaching English irregular verbs:

- **Memorisation from the alphabetical list.**

T1-“I have never utilized any particular methods or techniques to teach irregular verbs. I just tell my students to learn them by heart from the alphabetical list in their course books”.

T4-“Memorization technique is my favourite one together with lots of exercises”.

T6- “Learn by heart. No way out!”

T5-“I always tell my students to memorize them and then I usually ask them to do mechanical exercises I gave “.

T7-“I put big charts and pictures of common irregular verbs on the four walls of the classroom for my students to look at and learn them unconsciously every time they come in and go out of the classroom”.

T10-“I usually give my students a list of irregular verbs limited to the units we study that week and a lot of homework related to irregular verbs from those units. Not all the irregular verbs at a time, but little by little. No problem so far!”

- **Explicit grammatical explanation.**

T3-“My best technique for that subject is grammar explanation on the board; the three forms of irregular verbs, categorizing them according to their conjugation similarities, comparing them with the regular ones. I think it works”.

T20- “ I explain those irregular verbs by writing on the board and compare them with Turkish past tense”.

- **Course book instructions and activities**

T2-“I always prefer to follow the course book activities and some games like Bingo”.

T8-“I often play songs, always use charts and pictures on the wall to make them feel happy while they are learning. Of course, I do what I am told to do by the course book”.

In teaching irregular verbs, they usually use some commonly practised techniques such as list memorisation, grammar rules, vowel shift classification, and various games available in course and grammar books adopted in accordance with the curriculum. Very few of them are familiar with the application of new technology in classes, but the rest are unaware of CALL materials for English irregular verbs. However, they strive to learn how to use authoring programs to design and enforce CALL materials to enrich teaching and learning with various practical exercises. They are highly conscious of the potential effects of CALL that makes learning beyond time and space with its versatile and accessible features everywhere and anytime. They also feel that CALL materials create such ideal learning environments that the human brain, five senses, and memory function at full capacity.

The teachers say that they need these CALL materials not only for irregular verbs but also for all other language points because they are fully aware of the efficacy of educational technology to be implemented in schools. They all agree that CALL materials can fasten learning and increase its quality as well. For instance, with one simple click of a mouse, one can get any word in an electronic dictionary, whereas one can spend much more time on looking up any word in a paper dictionary of several hundred pages, which becomes frustrating after a while. For them all, CALL can offer more varied and motivating activities saving time and effort. In addition, these CALL materials will provide learner autonomy together with high motivation and fun, which are two important factors in language learning. All the ELT teachers are sure that CALL like that could lead to the innovation of curriculum and learning environments in order to equip students with language skills to access knowledge in the fastest way and communicate with the whole world. In their opinion, language learning should not begin and end in classes, but it should and can go on by means of CALL materials whether on personal computers or on the internet so that the expected aim can be achieved.

1-What do you think about the CALL materials designed to teach English irregular verbs?

Table 11: Views about CALL materials on English irregular verbs

	Number of ELT teachers		Frequency	
	Yes	No	Yes	No
Feasible/practical	40	-	100 %	-
Contributive to learning	40	-	100 %	-
Retentive effects	40	-	100 %	-
Contributive to other dimensions of learning environment	40	-	100 %	-
Production on your own	40	-	100 %	-
Others if any	-	-	-	-
	Total : 40	0	100 %	0

Views commonly shared

Responses by the teachers to the feasibility/practicality of the CALL materials developed indicate that they were found very easy to apply both in class and outside class on the internet, accessible to much more foreign language learners twenty-four hours a day. They were thought to be studied repeatedly on the internet or learners' personal computers. The answers also show that they were found highly flexible for learners' needs and suitable for not only irregular verbs but also other language learning-teaching activities as they addressed audio-visual senses that are considered to be so important in language learning. To the participants' views, rhythm, colours, animated components were other factors stimulating five senses that are accepted to be the helping tools for the human brain to perceive and understand the outer world.

For all the participants, these CALL materials were highly contributive to language learning process because they:

- were different and interesting enough to motivate students to learn better.
- tried to teach with fun, not boring and much better than list memorisation.

- were great fun to study with. Positive feelings enhance learning of any kind.
- were rich in audio-visual components that make learning easy and fast.
- supported multiple – intelligence learning.
- recycled the subject and provided depth of processing.
- were on the computer or internet, the two most used facilities by learners
- were not mechanic. They let learners know exactly why they needed to learn the second and third forms of irregular verbs, which made English learning significant.
- were suitable for learning styles and learner types
- fastened learning and teaching time in an effortless way for both teachers and learners.

Here are some of the statements of the participants about any contributions of the CALL materials to learning process.

- **Cognitive learning**

T17: “I think they can contribute a lot to learning because, as everyone knows, audio-visuals strengthen learners' retention”.

T20: “It seems to me that these CALL materials increase cognitive learning because they can stimulate audio and visual cortexes in the brain”.

- **Fun /positive feeling/motivation**

T8: “I am certain that students will learn English irregular verbs unconsciously while having fun. These CALL materials will be more efficient than boring workbook exercises or memorising the list on the last page of the course book”.

T25: “As far as I see, they address such senses as sight and hearing and they are so fun. It is a fact that positive feelings enhance learning”.

T29: “They are both enjoyable and practical for teachers and learners, so they will make contributions to learning”.

- **Learning styles**

T2: “They have a comprehensive content and they are rich in audio-visuals. In addition, they are suitable for learners types”.

T40: “This is a method that supports the theory of multiple-intelligence. And this method offers an alternative learning style to students”.

All the participants thought that they made significant contributions to retention for several reasons;

- audio-visuals increase brain and memory functions. Rhythm is very efficient.
- help the brain store data easily in memory.
- learners use most computers and other digital products that could expose them a lot to language.
- easy, fun, and motivating. That creates stress-free learning and teaching settings that are important factors in learning process.
- possibility of repeating activities helps retention, frequency of exposure.
- involve learners directly in learning process thanks to their interactive features.

The participants views related to any contribution of the CALL materials to the retention are as follows:

- **Memory and learning**

T8: “I suppose that they will help the human brain store inputs in memory more easily. beynin hafızaya yazmasını daha kolaylaştırır”.

T39: “A combination of music, pictures, and colours creates retention”.

T11: “They are cognitive with audio-visuals. Therefore, they will be retained in memory”.

T16: “There is a lot of repetition and they are backed with pictures. Consequently, they will have retentive effects”.

T1: The retention will last longer with visual memory”.

T22: "I claim that they have double effect on account of audio-visuals and repetition, which makes students recall easily what they learn".

T37: "They provide "frequency exposure" that is essential to remember.

The responses to the contribution of the CALL materials to other dimensions of language learning and teaching proved certainly that they had considerable positive impacts on all the actors and factors in language learning process such as teachers, learners, learning styles and multiple intelligence, the human brain, memory and learning, learning and teaching settings- school or home. The following are the outstanding contributions to other dimensions of teaching and learning:

- provide learner autonomy.
- break the monotonous atmosphere of traditional classrooms and create more lively and motivating learning environment.
- every student can find something interesting to take part in.
- new generation is very familiar with technology, which enable learners to access to language learning sources easily with no time limitation.
- are ideal for studying outside the classrooms, at home or in a dormitory. With them every place is a classroom.
- far from rote learning, increase cognitive learning.
- make students active both in using technology and language learning.
- a new and different method. That is why learners will find themselves focused on language learning.
- perfect flow of activities, so students can not find the time to get bored.
- not boring and ordinary like notebooks, heavy books, and dictionaries.
- enable teachers to create a wide variety of activities effortlessly and in a very short time.
- broaden teachers' horizons in new methods and techniques.

As examples of what the participants think about the possible contribution of the CALL materials designed for this research to other dimensions of teaching and learning process, a few of their views are here.

- **Contributions to other educational dimensions**

T5: “With time management, more various exercises in a short time are possible. Plus motivation of both parties: teachers and learners”.

T6: “I think that these CALL materials can turn the traditional learning settings into an ideal learning environment with music, audio-visuals, and multimedia supports”.

T10: “These materials supply students with versatile language activities that can be used repeatedly anywhere and anytime”.

T13: “I am sure they will lead to learner autonomy with which any learner can study entirely on their own, take responsibility for their own learning, determine the direction of their own learning”.

T30: “For me, they are ideal for those learners who never like to carry heavy books or dictionaries”.

T33: “They can remove the routine boredom of the classroom. For me, audio-visuals provide the greatest fun”.

T35: “In my opinion, ELT teachers can create many activities of any kinds easily and in a very short time”.

For the above reasons, all the participants stated that they would like to be able to design and use such activities not only in their classrooms but also on the internet and added that it seemed to them very difficult to do so in a short time.

The last items of the second part of the questionnaire “other views if any” were not answered at all.

The results of this study reveal that any learning activity is directly connected with the brain. So the learning or teaching environment must address what the human brain requires to function optimally in order to serve its owner efficiently. Curricula, teaching techniques and methods should comply with the human brain needs. Stress-free learning settings, images, music, and colours are the main factors affecting the human brain mostly in learning. Given those essential factors, CALL seems to be the most appropriate way to meet all that the human brain needs in learning in the fastest, easiest, and funniest and most motivating way. CALL can also provide

accessible resources of any possible kind for both teachers and learners about any kind of communication competencies for the digital age. It can also enable them to profit to a large extent from the brain based learning principles whether consciously or unconsciously. The needs of the human brain can be met by CALL that can create vivid lessons and exercises applicable in and outside classrooms. The study also shows tools and tips to support professional development, including reproducible materials for use by individual teachers or study groups.

There is an immensely important conjunction between language learning and CALL. This study considers the application of CALL in raising and widening English learning achievements in and outside the classroom, and explores ways that CALL can be harnessed to help students develop language learning skills, with the brain in mind. Teaching learners with CALL supports educators in this aim by offering creative examples of good practice in all the fields of teaching languages. It provides computer mediated communication, literacy implications of computer games and chat rooms, parents and children using the internet at home, and the implicit literacy skills involved. CALL will provide non-stop language learning anywhere and anytime by addressing all the four language skills. This study argues that if learners and teachers are encouraged to use CALL in their learning or teaching process, they will be ready to learn or teach any foreign language in faster and easier ways with high fun and motivation in the 21st century.

CHAPTER 5

CONCLUSION

This research intends to make contributions, if any, to teaching and learning English irregular verbs by means of CALL materials designed for this research in the light of the findings of neurolinguistics that is:

Neurolinguistics is the study of the neural mechanisms in the human brain that control the comprehension, production, and acquisition of language. As an interdisciplinary field, neurolinguistics draws methodology and theory from fields such as neuroscience, linguistics, cognitive science, neurobiology, communication disorders, neuropsychology, and computer science.

(<http://en.wikipedia.org/wiki/Neurolinguistics>)

The research was carried out at Sıtkı Koçman School of Foreign Languages with the voluntarily participation of forty ELT teachers who provided data about their professional backgrounds, ways of teaching English irregular verbs, and CALL materials of this research.

The data collection was realized in two phases through a semi-structured self-reflective questionnaire emailed to sixty-five ELT teachers of Sıtkı Koçman School of Foreign Languages. In the first stage, they were asked to report how they had been teaching English irregular verbs and what they thought about alternative teaching and learning methods or techniques of irregular verbs. In the second one, they were asked to express their opinions about the CALL materials created for this research and published on the Website of their school.

The responses from the experienced ELT teachers at the mentioned school pointed out that English irregular verbs had been taught in such traditional ways as list memorisation, course book activities, and explicit grammar explanation in teaching settings lacking CALL equipment, and that they had no idea about CALL, but it turned out to be that they were aware of what impacts CALL materials could

make on learning and teaching process after they had examined and practiced the CALL materials.

The participants' views show that these materials can be useful for both learners and teachers for several reasons in language learning and teaching process.

As a result of this research, it became clear that ELT teachers had been using just course and grammar books with their activities to teach English irregular verbs; list memorization. As alternative methods and techniques, only two of them stated that there could be charts, pictures, and songs to teach irregular verbs. The 95 % of them seemed to be unaware of any alternative methods and techniques of teaching irregular verbs.

As for the CALL materials designed for the purpose of teaching irregular verbs, their views were positive and confirmed the data in the literature review part of this study. In this study the CALL materials were found; feasible, contributive to learning, effective on retention, contributive to other dimensions of learning-teaching environment. Briefly, all the ELT teachers wanted to be able to create and use these kinds of materials not only for irregular verbs but also all the other subjects in language teaching.

According to the data obtained from this descriptive research, as English irregular verbs are not cognitive at all, but surprisingly inconsistent even with irregular conjugation rules, both teachers and learners have trouble to some extent with them. Lack of new motivating and fun materials, teachers and learners try to teach or learn them through alphabetical lists with no logical classification rule or technique either in course or grammar books, which is boring, tiring, and wasting time with no successful results. Most teachers apparently tell their students to memorise them after a few short explanations about ever changeable and illogically irregular conjugation rules. In fact, it is not that easy to learn all the English irregular verbs and correctly use them when they are needed.

Through memorisation, to what extent can learners use their brains that require coherent components and connections in any event? Seemingly not so much as far as the results of this research point out. Then learners must use their memory effectively to learn irregular verbs and retain them to use for any future use. The present research shows that the human memory is most affected by some factors such as images, sound, music, colour, rhythm, and movement. According to Britannica Concise Encyclopedia (2009) “the ability to retain information is fairly uniform among normal individuals; what differs is the degree to which persons learn or take account of something to begin with and the kind and amount of detail that is retained. Attention, motivation, and especially association facilitate this process. Visual images are generally better remembered than are other forms of sense-data. Memory prodigies, or people with "photographic" or "eidetic" memories, often draw heavily on visual associations, including mnemonics”.

(www.babylon.com/eng/display.php?id=420&tree=5&level=3).

It is clear that the body and mind are interconnected. For the brain to function optimally and productively, to achieve a good performance, there must be a mind-body harmony: stress-less body, relaxed and awake mind. The mind is affected by images and pictures, colour and music. A picture is worth a thousand words. The mind easily remembers the faces and places seen and visited before. Colours help the mind to be alert-like red at the traffic lights, to memorise easily and correctly - underlined sentences, post-it notes etc. Music is said to have a great effect on the brain. That is a calming, relaxing and consequently energising effect for perfect preparation for studying (Gardner, 1993).

There are different types of learners such as “active/reflective, sensing, intuitive, visual/verbal, sequential/global, so there must be accordingly learning materials suitable for their learning styles. That is why, in many ways, CALL seems to be the best way to meet all the needs of both teachers and learners, keeping the human brain and memory in mind.

This study tried to show the use of computers/technology as a pedagogical tool to aid in the appropriate instruction of English irregular verbs. The second focus of this research is on the informed use of various technologies and software programs that can specifically aid English language learning. Teachers can be helped to harness the power of computer-assisted technologies in meeting the challenges of including all learners in effective instruction.

The way computers have changed our lives is indeed fascinating. Even small children are getting exposed to them wherever they go. It's not surprising if they start saying "C" for "Computer" instead of "Cat". To arouse and sustain children interest in language learning, CALL can use cartoon characters, colourful and vibrant illustrations, nursery rhymes and fun-filled exercises. All these go to make language learning easy and simple.

Computers can do much of the work done by a teacher and provide great support to the learner even in the absence of the teacher. By means of new technologies computers have become smaller, faster, and easier for the teacher to use. Nowadays, well-designed CALL software is readily available to the teacher. With new technologies computers can make possible multimedia applications, incorporating video, sound, and text, and this feature permits the learner to interact with both the program and other learners. The computer offers great flexibility for class scheduling and pacing of individual learning, choosing activities and content to suit individual learning styles. The computer can provide a meaning-focused, communicative learning environment, which serves the purposes of communicative language teaching.

According to the findings of Timuçin (2006) although both teachers and administrators of many schools are eager to use technology for educational purposes, the efficient application of the ever-changing technologies and dealing with relevant fundamental changes are not as expected yet because it needs both parties, especially administrators to strive to fulfil the obligations in question, and he concludes that neither of the parties is well equipped to accomplish the necessary innovation through technology. After all, As Sokolik (2001, p.477) states good teaching

methodology depends more on sound pedagogy than on access to any particular form of computer technology. Although the language teachers in our local setting are willing to use technology they do not feel secure and qualified to use them in their actual teaching practices as they are not trained and well-equipped in this aspect of teaching. For that reason teacher training programs should cover this gap by placing courses in technology use. One thing should not be ignored here: These courses should be integrated with the actual classroom practices. For the teacher in service we need more and frequent in-service training programs in order to make them technologically-friendly.

Suggestions for Further Research

With this study the importance of CALL materials through which the human brain can be optimized in language learning cannot be denied. Much more research is needed in this area considering the various aspects of language learning and teaching. These aspects can be such variables as learner differences, use of strategies, classroom environment, etc. As this study is a descriptive study we need experimental studies in order to investigate the effects of CALL classes on students' motivation and involvement, achievement and retention levels. We also need the actual use of CALL in language classroom while teaching irregular verbs in English. Additionally, further research projects on the effects of multimedia technology on learner's physical, cognitive, emotional, and social development could be set up.

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APPENDICES

Appendix 1 List of animated irregular verbs

	Part 1			Part 2		
	V1	V2	V3	V1	V2	V3
1	have	had	had	take	Took	taken
2	say	said	said	put	Put	put
3	do	did	done	tell	Told	told
4	see	saw	seen	give	Gave	given
5	make	made	made	read	Read	read
6	find	found	found	keep	Kept	kept
7	know	knew	known	begin	Began	begun
8	get	got	got	let	Let	let
9	go	went	gone	hear	Heard	heard
10	write	wrote	written	cut	Cut	cut
11	think	thought	thought	eat	Ate	eaten
12	come	came	come	run	Ran	run
13				bring	brought	brought
14				become	became	become
15				grow	Grew	grown
16				draw	Drew	drawn
17				show	showed	shown
18				mean	meant	meant

	Part 3				Part 4		
	V1	V2	V3		V1	V2	V3
1	feel	felt	felt		sit	sat	sat
2	hold	held	held		spend	spent	spent
3	stand	stood	stood		ring	rang	rung
4	understand	understood	understood		wear	wore	worn
5	lose	lost	lost		sell	sold	sold
6	catch	caught	caught		beat	beat	beaten
7	buy	bought	bought		win	won	won
8	send	sent	sent		hurt	hurt	hurt
9	fall	fell	fallen		sing	sang	sung
10	choose	chose	chosen		blow	blew	blown
11	sleep	slept	slept		rise	rose	risen
12	speak	spoke	spoken		ride	rode	ridden
13	meet	met	met		fly	flew	flown
14	lead	led	led		drink	drank	drunk
15	bite	bit	bitten		forget	forgot	forgotten
16	hit	hit	hit		throw	threw	thrown
17	drive	drove	driven		hang	hung	hung
18	break	broke	broken		swim	swam	swum

Appendix 2 List of English irregular verbs

Abide	Abode/Abided	Abode/Abided/Abidden
Alight	Alit/Alighted	Alit/Alighted
Bedight	Bedight/Bedighted	Bedight/Bedighted
Beseech	Besought/Beseeched	Besought/Beseeched
Belay	Belaid/Belayed	Belaid/Belayed
Bestrew	Bestrewed	Bestrewed/Bestrewn
Bide	Bided/Bode	Bided
Blend	Blended/Blent	Blended/Blent
Bless	Blessed/Blest	Blessed/Blest
Broadcast	Broadcast/Broadcasted	Broadcast/Broadcasted
Burn	Burnt/Burned	Burnt/Burned
Clap	Clapped/Clapt	Clapped/Clapt
Cleave	Cleft/Cleaved/Clove	Cleft/Cleaved/Cloven
Cleek	Claught/Claucht/Cleeked	Cleeked
Clepe	Cleped	Cleped/Ycleped/Yclept
Clothe	Clad/Clothed	Clad/Clothed
Crash-dive	Crash-dived/Crash-dove	Crash-dived
Crow	Crowed/Crew	Crowed
Dare	Dared/Durst	Dared
Daydream	Daydreamed/Daydreamt	Daydreamed/Daydreamt
Dight	Dight/Dighted	Dight/Dighted
Disprove	Disproved	Disproven/Disproved
Dive	Dived/Dove	Dived
Dow	Dought/Dowed	Dought/Dowed
Dream	Dreamt/Dreamed	Dreamt/Dreamed
Engrave	Engraved	Engraved/Engraven
Fit	Fit/Fitted	Fit/Fitted
Forecast	Forecast/Forecasted	Forecast/Forecasted
Foreshow	Foreshowed	Forshowed/Foreshown

Fraught	Fraught/Fraughted	Fraught/Fraughted
Gaslight	Gaslit/Gaslighted	Gaslit/Gaslighted
Geld	Gelded/Gelt	Gelded/Gelt
Gild	Gilt/Gilded	Gilt/Gilded
Gird	Girded/Girt	Girded/Girt
Gnaw	Gnawed	Gnawed/Gnawn
Grave	Graved	Graven/Graved
Hamstring	Hamstrung/Hamstringed	Hamstrung/Hamstringed
Handsew	Handsewed	Handsewn/Handsewed
Hang	Hung/Hanged	Hung/Hanged
Heave	Heaved/Hove	Heaved/Hove
Hoise	Hoised/Hoist	Hoised/Hoist
Hoist	Hoist/Hoisted	Hoist/Hoisted
Input	Input/Inputted	Input/Inputted
Interblend	Interblended/Interblent	Interblended/Interblent
Intergrave	Intergraved	Intergraved/Intergraven
Inweave	Inwove/Inweaved	Inwoven/Inweaved
Ken	Kent/Kenned	Kent/Kenned
Kneel	Knelt/Kneeled	Knelt/Kneeled
Knit	Knit/Knitted	Knit/Knitted
Lade	Laded	Laden/Laded
Landslide	Landslid/Landslided	Landslid/Landslided
Lean	Leant/Leaned	Leant/Leaned
Leap	Leapt/Leaped	Leapt/Leaped
Learn	Learnt/Learned	Learnt/Learned
Melt	Melted	Molten/Melted
Mislearn	Mislearnt/Mislearned	Mislearnt/Mislearned
Misspell	Misspelt/Misspelled	Misspelt/Misspelled
Miswed	Miswed/Miswedded	Miswed/Miswedded
Nose-dive	Nose-dived/Nose-dove	Nose-dived/Nose-dove
Outleap	Outleapt/Outleaped	Outleapt/Outleaped

Output	Output/Outputted	Output/Outputted
Outsmell	Outsmelt/Outsmelled	Outsmelt/Outsmelled
Outwork	Outworked/Outwrought	Outworked/Outwrought
Overleap	Overleapt/Overleaped	Overleapt/Overleaped
Overlearn	Overlearnt/Overlearned	Overlearnt/Overlearned
Overpass	Overpast/Overpassed	Overpast/Overpassed
Oversow	Oversowed	Oversown/Oversowed
Overspill	Overspilt/Overspilled	Overspilt/Overspilled
Overstrew	Overstrewed	Overstrewed/Overstrewn
Pen	Pent/Penned	Pent/Penned
Plead	Pled/Pleaded	Pled/Pleaded
Potshot	Potshot/Potshotted	Potshot
Prove	Proved	Proven/Proved
Rap	Rapped/Rapt	Rapped/Rapt
Re-prove	Re-proved	Re-proven/Re-proved
Reave	Reft/Reaved	Reft/Reaved
Redd	Redd/Redded	Redd/Redded
Reeve	Rove/Reeved	Rove/Reeved
Reknit	Reknit/Reknitted	Reknit/Reknitted
Relearn	Relearnt/Relearned	Relearnt/Relearned
Relight	Relit/Relighted	Relit/Relighted
Resew	Resewed	Resewn/Reswed
Resow	Resowed	Resown/Resowed
Respell	Respelled/Respelt	Respelled/Respelt
Retrofit	Retrofit/Retrofitted	Retrofit/Retrofitted
Rewake	Rewoke/Rewaked	Rewoken/Rewaked
Reweave	Rewove/Reweaved	Rewoven/Reweaved
Rewed	Rewed/Rewedded	Rewed/Rewedded
Rewet	Rewet/Rewetted	Rewet/Rewetted
Rid	Rid/Ridded	Rid/Ridded
Rive	Rived	Riven/Rived

Saw	Sawed	Sawn/Sawed
Self-sow	Self-sowed	Self-sown/Self-sowed
Sew	Sewed	Sewn/Sewed
Shave	Shaved	Shaven/Shaved
Shear	Shore/Sheared	Shorn/Sheared
Shew	Shewed	Shewn/Shewed
Show	Showed	Shown
Smell	Smelt/Smelled	Smelt/Smelled
Sneak	Sneaked/Snuck	Sneaked/Snuck
Speed	Sped/Speeded	Sped/Speeded
Spell	Spelt/Spelled	Spelt/Spelled
Spill	Spilt/Spilled	Spilt/Spilled
Spoil	Spoilt/Spoiled	Spoilt/Spoiled
Stave	Stove/Staved/Stoved	Stove/Staved/Stoved
Strew	Strewed	Strewn/Strewed
Stride	Strode/Strided	Stridden
Strip	Stript/Stripped	Stript/Stripped
Sunburn	Sunburned/Sunburnt	Sunburned/Sunburnt
Sweat	Sweat/Sweated	Sweat/Sweated
Sweep	Swept/Sweaped	Swept/Sweaped
Telecast	Telecast/Telecasted	Telecast/Telecasted
Thrive	Throve/Thrived	Thriven/Thrived
Tine	Tint/Tined	Tint/Tined
Toss	Tossed/Tost	Tossed/Tost
Unclothe	Unclad/Unclothed	Unclad/Unclothed
Underdelve	Underdelved	Underdolven/Underdelved
Undergird	Undergirt/Undergirded	Undergirt/Undergirded
Unknit	Unknit/Unknitted	Unknit/Unknitted
Unlade	Unladed	Unladen/Unladed
Unlearn	Unlearnt/Unlearned	Unlearnt/Unlearned
Unreeve	Unrove/Unreeved	Unrove/Unreeved

Unsew	Unsewed	Unsewn/Unsewed
Vex	Vext/Vexed	Vext/Vexed
Wed	Wed/Wedded	Wed/Wedded
Wend	Wended/Went	Wended/Went
Wet	Wet/Wetted	Wet/Wetted
Whipsaw	Whipsawed	Whipsawn/Whipsawed
Wont	Wont	Wont/Wonted
Work	Worked/Wrought	Worked/Wrought
Wrap	Wrapped/Wrapt	Wrapped/Wrapt
Wreak	Wreaked	Wreaked/Wroken
Zinc	Zinced/Zincked	Zinced/Zincked

Appendix 3 The semi-structured reflective questionnaire

Saygı deęer meslektařlarım,

Tarafımızdan İngilizce hazırlık sınıflarında kullanılmak üzere İngilizce düzensiz fiillerin 2. ve 3. Hallerinin öğretilimiyle ilgili bilgisayar tabanlı bir program hazırlanmıştır. Bu program adresini gönderiyoruz size gönderiyoruz. Lütfen izleyiniz ve ilişikteki anketi doldurunuz.

Questionnaire Part 1

1-İngilizce düzensiz fiillerin 2.ci ve 3.cü hallerini nasıl öğretmektesiniz?

2-Yukarda belirttiđiniz öğretim yaklaşımından başka bir yaklaşım ya da yöntem olabilir mi? Cevabınız evet ise, lütfen kısaca açıklayınız.

Questionnaire Part 2

1. Mezun olduğunuz bölüm:

2. Kaç yıldır yabancı dil öğretiyorsunuz?

3. Akademik durumunuz:

- Lisans
- Yüksek Lisans
- Doktora

4. Ne sıklıkla hizmet içi eğitime katılıyorsunuz?

5. Ne sıklıkla bilgisayarı öğretim etkinliklerinizde ve diđer faaliyetlerde kullanıyorsunuz?

6. Daha önceden Bilgisayar destekli yabancı dil öğretilimiyle ilgili bir deneyiminiz oldu mu? Yanıtınız evet ise kısaca belirtiniz.

7. İlişikte sunulan programla ilgili yabancı dil öğrenme ve öğretme ortamını dikkate alarak görüşlerinizi belirtiniz.

- Programın uygulanabilirliği ile ilgili
- Programın öğrenmeye katkısı: katkısı olabilecek /olmayacak çünkü
- Programın öğrenmede kalıcılığa etkisi
- Programın öğrenme ve öğretme ortamının diğer boyutlarına katkısı
- Bunları kolayca üretebilmek ve uygulamak istermiydiniz?
- Diğer (varsa belirtiniz)

Appendix 4 : Music (Mozart effect)

Here are the collection of 19 MP3 files:

Mozart Sonata in C Major (K330) (Allegro), Sonata for Two Pianos (K448) (Molto Allegro)

Vivaldi Spring (Four Seasons) (Movement #1)

J.S. Bach Orchestral Suite #1 in C Major (Courante, Gavotte, Forlane, Minuet, Bourree), Concerto #1 in G Major (Allegro #1, Allegro #2, Allegro #3)

G.F. Handel Concerto #2 in F Major (Allegro, Allegro Ma Troppo), Concerto #11 in A Major (Allegro), Arrival of Queen of Sheba, Water Music (Hornpipe, Bourree), Fireworks Music, Concerto #26 in D (Bourree, Allegro)