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EVALUATION IF INTERNET BASED MATERIALS FOR LANGUAGE LEARNING

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EVALUATION IF INTERNET BASED MATERIALS FOR LANGUAGE LEARNING

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ABSTRACT

In the past decade the use of Internet has been integrated in all aspects of human life, and has established a new era in education. In particular, in the field of foreign languages, the Web seems to be a promising delivery mechanism, as its multimedia and hypertext nature encompasses a lot of potential by integrating text, sound and video, free of charge and easily modified. Indicative of the increasing role of the Internet in language learning is the acronym Web Enhanced Language Learning (WELL), which has been added to the already long list of acronyms created to describe the use of computers in language learning. This study attempts to discuss possible applications of the Internet in language learning and further present and evaluate Web sites dedicated to English language teaching. Data has been gathered from an evaluation of 30 EFL (English as a Foreign Language) sites for the ΕΠΕΝΔΥΣΗ programme, at the University of Macedonia. The results of this work would offer a first glance opportunity to the average teacher who may be besieged by the amount of information available on-line (Net).

Evaluation of Internet-based materials for language learning

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1.0 INTRODUCTION

The speed with which technology has developed in the last decade has admittedly been “extraordinary and surprisingly sustained”. Today the Internet is widely accepted by many English language teachers as an excellent source of authentic language and communication. Undoubtedly, learners who have Internet access can easily log on to sites dedicated to language learning and practice on certain areas of language, or get authentic information in the English language, practicing indirectly the target language. A considerable number of academic institutions, educational organisations and individuals have published sites for English language learning. A welcome and interesting change of educational software that followed is that the software employed

to create computer applications has become more user-friendly and does not require high computer expertise for the average computer client to learn and use. On the other hand though the rapid development of hardware and software has left little time for evaluation, in Levy's (1997:1) own words "for educators, the rapid and continuing introduction of new technology into education, has outpaced the ability of teachers and developers to evaluate it properly". This development contributed to the creation of an enormous amount of Internet sites produced by various sources. Search engines appear not to be serviceable. One example could be that, using the terms "language learning" as key words for an Internet search would reveal an extraordinarily huge amount of sites offering some sort of practice for language teaching. As a result it becomes very difficult for the average Internet oriented language teacher to detect, classify, evaluate, and integrate sites in their teaching. It is therefore the aim of this study to present and evaluate Web sites dedicated (that is, sites that can be used straightforwardly by language teachers) to English language learning, offering a first glance opportunity or an initial evaluation to the Internet oriented language teacher of material that can be located on the Internet before s/he embarks on searching on his/her own. Clearly one may find on the Internet other sites non-dedicated to language learning "which could be used for language teaching/learning purposes although not specifically designed for that purpose" Scholfield and Ypsilandis (1994a:227).

2.0 WELL

The term Web Enhanced Language Learning (WELL) is nowadays widely used to describe a possible role of the Internet in language learning. Among the arguments used concerning possible uses of the Internet for language learning purposes are that the Internet can: a) evaluate/test (through traditional exercises), b) assist learning (through support material such as on line Dictionaries), c) offer opportunities for open and controlled real role-plays, both synchronous and asynchronous (this aspect of Web based activities is not evaluated in this study), d) provide access to a wide variety of authentic language material for project work, e) assist translation (through translation tools), f) offer access to sites for edutainment, ideal for language practice (of different student ages, groups and interests), g) give access to resources for readers, and finally h) provide an authentic environment for the practice of skills (writing, reading, listening, and speaking through a Web camera and a microphone,) focussing on language content and not on language form. All the above can be done at an individual pace and path/direction of learning enhancing student autonomy. In addition the Internet can offer more elaborate feedback, both in terms of: a) *media* (text, sound, picture, video) to increase awareness of standard and non-standard variations of English (native and non-native), face/body gestures/language or other sociopragmatic or cultural differences, and b) *complexity* (structured feedback to enhance long term memory).

On the other hand, possible problems with the Internet may relate to: a) the enormous amount of material on offer which may distract and discourage language learning, b) lack of material screening before publication (spelling and grammar errors but also culture specific information which can be offensive to other cultures), c) false perception of reality as the Internet may give the impression to users that if something

is not found, it does not exist, d) the fact that material on the Web is not structured thematically and this makes search time longer and possibly unsuccessful if the user does not input the expected key words, e) the fact that the material is not always designed with a clear didactic purpose (anyone can store information on the Net), f) URL or content alterations (on some sites the content is altered on a daily basis) or dead links, g) material is not always classified in sectors of relevance to language learning (i.e. vocabulary for Sports, grammar exercises for the FCE, cultural information for Scotland etc.), or language learning skill (either linguistic or study skills).

There are usually four modes of using the Internet for language learning purposes: 1) *individual use*, that is one computer per person which is ideal for self pace and self path/directed individual learning or achievement/testing, 2) *group use*, which is ideal for language practice to enhance learning, or for project preparation, 3) *class use*, which is ideal for off-screen interaction/discussion through adventure games, treasure hunt etc., and 4) *self access use*, which is ideal for work before or after class.

3.0 EVALUATION OF INTERNET-BASED MATERIALS

As suggested by Scholfield and Ypsilandis (1994b:63) “like any pedagogical materials and activities, CALL, or a specific instance of CALL [the Internet in this case], potentially can be evaluated in terms both of its underlying theory and its actual execution in practice” (the content in square brackets is ours). This evaluation performed through a blend of evaluation criteria to investigate whether Internet-based sites are “compatible in principle with a number of standpoints on language learning and teaching” (ibid.) found in the related literature and Human Computer Interaction (HCI). Thus, our evaluation regards: 1. Language related considerations (Theories of SLA, teaching methodologies). 2. Content related considerations (Authenticity, accuracy, quality and quantity of content, structure and organisation, input, output, feedback, utility for class and self-access purposes). 3. Human-computer interaction (Usability, learnability, interface). 4. Appropriateness and effectiveness of multimedia applications (Audio/Visual Presentation, Text and Graphics appropriateness and effectiveness, devices used and facilities offered). The evaluation is of a “personal introspection approach” (as suggested by Scholfield and Ypsilandis 1994b) where two researchers evaluated several sites based on their experience, using a checklist of evaluation points covering the above-mentioned range of variables. Clearly this type of evaluation can lack objectivity although the intuitions of more than one expert have been utilised to avoid it.

4.0 METHOD

Design and Procedure

This evaluation is part of the project ΕΠΕΝΔΥΣΗ. The sites were accessed during the period of October -December 2000. For this purpose, we used the search engine Alta Vista, typing the words “language learning”, “English as a Foreign Language” and “on-line language material”. Not all relevant sites were evaluated though. It was decided to apply the principle of authorship suggesting that educational software should be structured and designed by a team which would include experts in

programming, instructional design, graphics, project management and creative thinking together with subject knowledge and teaching skills (McAteer, Erica, and Robin Shaw, 1994:5). Thus, the selected sites for evaluation were chosen to be authored by well-known educational organisations such as: a) Educational institutions (the British Council, BBC Learning English Area), b) Universities (Hull University, Stirling University, University of Illinois, Ohio University, University of Hertfordshire), c) Well-known publishers (Oxford University Press, Longman, TESL Journal, Cobuild, Cambridge, Merriam-Webster), d) E-learning organisations (the Digital Education Network, GlobalEnglish), and e) E-commerce organisations (Atomica).

Subjects

During the evaluation period 25 sites with language learning materials were viewed and assessed, out of which: a) 11 focused on all language skills (reading, writing, listening and speaking). These sites are divided in stand-alone courses under fee, and interactive exercises together with theoretical background for the development of the four language skills. b) 3 focused on grammar. Grammar sites combine theory and practice by means of interactive exercises. c) 2 focused on listening. These are sites with listening resources accompanied by comprehension exercises. d) 1 focused on writing. This resource has a theoretical orientation and it is based on writing strategies. e) 5 web dictionaries out of which only one is bilingual (English-Greek). f) 1 machine translator. g) 1 corpus, and h) 1 book database.

Results-Language Related Considerations

The majority of these sites were drill-oriented, based on Skinner's theory of stimulus, response and reinforcement and therefore behaviourist in nature. It is surprising that, the structures and vocabulary to be learned were not repeated in order to create habits, as the Audiolingual Approach suggests. In addition, representation of new vocabulary and structures through dialogues, and learning through imitation and repetition, with successful responses positively reinforced was particularly limited in those sites, which practiced all language skills. Examples are: *LE*, *LIG*, *LELT*, *BBC*, *TEFL*, *GE*, *OESL*, *WC*, *EAP* and the *VLC*. (All sites are related to with acronyms in the text. Full titles are provided in the references section.) On the other hand, the sites dedicated to listening activities – the *ELL* and *RESL* – disposed a large number of activities that increased the percentage of – structure or vocabulary – repetition.

BBC incorporated multimedia and authenticity to create LL materials based on cultural information about the UK. *RESL* included dialogues taken from everyday or academic life such as Sightseeing in Town, A Day at School, or Hotel Check-In. *TEFL* included travellers' information for learners to increase their vocabulary and practice real-life listening and grammar. Here, language functions as a source of information rather than code, where students can form hypotheses and participate actively in the learning process. These sites' underlying theory meets with the goals of SLA that deal with the use of English for social communication and in culturally acceptable ways for different formal and informal situations according to audience, purpose, and setting (Vilmi, R., 2001).

RESL and *ELL* made better exploitation of the theories of transfer, cognitive flexibility, and constructivism, as information was presented in a variety of different contexts and learners can more easily make associations between prior and new knowledge. The

cognitive flexibility theory supports that in order to learn complex material one has to experience the application of this material in different situations (Borsook, T.K., and Higginbotham-Weat, N., 1992), and that teachers can facilitate learning by showing students ‘how new ideas relate to old ones’, otherwise learning might be ineffective (Grau, I., 1995). In support of the above the constructivist view of learning also claims that meaning – and therefore – learning comes from experience (Grau, I. And Bartasis, J., 1995).

The transfer hypothesis claims that ‘something learned in one situation manifests itself in another situation,’ (Nakasone, J., 2000). In this light, the *CD* corpus offered an excellent means of learning how structures and individual words are used in different linguistic environments. Students need only type the target structure and they will instantly receive all different cases in which the target structure has been used by the target culture in the associated corpus.

The majority of EFL sites – *ELE, GU, TEFL, LE, LC, LELT, OESL, RESL, SSQ, BBC, ELL, IGE, LC, WC, EAP, and VLC* – were drill-based oriented with self-directed learning that do not consider formal instruction necessary (Harmer, J., 1994, p. 34). Emphasis is given in drills and quizzes based on language theory – which is not always provided in the site. *GE* is more organised and structured in this domain, identifying its target users in terms of language level and separating its contents into units. Each unit treats one topic with its vocabulary and grammar constantly repeated. The user can also repeat the activities, engage him/herself in various exercises and repetitive training on the same grammatical and lexical patterns to create language behaviours. On the whole, EFL sites accommodate some behaviourist and cognitive theories but do not exploit them thoroughly and do not exhaust the computer’s capabilities.

Results – Content

In terms of authenticity, reading and listening texts regard current issues and were, either authentic or slightly didactic – with authors altering input to suit learners’ level of competence and needs –, in some cases certain texts were replaced by more up-to-dated texts. This was the case of BBC, where the learning material changes (usually every month), for learners to have constant access to different resources, expand their vocabulary, experience new subject areas in the TL, and get varied cultural information. On the other hand, sites that deal with less dynamic linguistic features, such as grammar and syntax (IGE, SSQ, GU and LC) were not very interested in authenticity. Each quiz was a fossilised exercise that practiced a specific structure, and did not get updated. Morphology and syntax were stressed while meaning was set aside.

Regarding accuracy, all evaluated sites were found linguistically accurate. Non-dedicated LL texts may include some typos, or the use of slang. *TEFL* had links to various media (TV, radio, newspapers) but it was not responsible for their accuracy. The developers of *TEFL* had selected links of well-known media, and therefore, the chances of inaccuracy were minimised. The only inaccurate site was *IGT*, a Machine Translation (MT) system that translated English to Greek and Greek to English. In MT, some words remained unchanged (not translated), whereas others had a connotation that was not used in a specific context. For example, the question ‘*θέλεις να παμε κινηματογραφο;*’ was translated ‘*Theleis we go cinema*’. Even though this

was not an ESL dedicated site, it can be used in the classroom as a way for students to identify errors and correct them. This can be a valuable classroom activity, considering the fact that learners, during the early stages of acquisition, are said to translate each sentence in their mind before articulating it. However, this site is not appropriate for elementary independent students, as there is always the danger that learners will not identify these errors and will acquire incorrect structures.

Web site designers also stress the importance of content together with controls that is tags or markup language. It is suggested that the success of a page involves ‘engaging’ content that has links to other ‘high-quality, content-filled’ pages (Tittel, E. and Pitts, N., 1999:22). The contents of the evaluated sites can be classified as: a) Drill and practice activities (quizzes) for the four language skills, divided in multiple-choice and fill-in-the-gap exercises, found in all EFL dedicated sites. Quizzes were the most frequent types of activities. Multiple-choice drills were also very popular, because users are only required to view and select the right answer. This prevented learners from making careless spelling mistakes or typos that the computer would classify as errors. b) Games. Games were not very frequent. They can be found in *LE*, *LELT*, *VLC*, and *MWC*. The games included were Tongue Twister, Hangman, word games in dictionaries, the Jumbler Apple game and Word Trap. Games generally dealt with grammatical and lexical items, similarly to drills. Games are claimed to attract more active learners who enjoy ‘beating the machine’ instead of completing a drill patiently and mechanically, and increase variety in ESL sites. c) Exploratory activities such as the treasure hunt were found in *the GS* and *LE*. Discovery in learning, a principle that is realised in activities such as simulations and treasure hunt, is strongly constructivist in nature (Bartasis, J., 1995) Students are asked to ‘hunt’ or ‘explore’ sites or the WWW in order to gather the specific information required to win, and they are actively involved in the process of hunting and critically select the pieces of information. Such activities were also rarely encountered in ESL sites. d) Tutorials in language theory as well as skills and strategies for the practice of the four language skills, were found in *EAP*, *BBC*, *LELT*, *GE*. These sites can offer valuable assistance to autonomous learners who need guidance on how to acquire language and prefer to study theory before moving to practice. e) Text reconstruction. These activities were found in CELT and were divided in text rebuilding and text re-ordering activities. Text reconstruction can offer practice with reading, writing, grammar and vocabulary in an active way. f) Teacher tips in *LELT*, *TEFL* and *OESL* offered information about classroom management, lesson plans, teacher mail lists, teaching methods, books, articles, resources with authentic materials, technology news, job opportunities, research and evaluation methods.

In terms of content quantity, only *GE* combined theory and activities based on text, vocabulary, morphology, syntax, phonology and discourse, and provided the learner with a variety of options. Most sites concentrated on one, two or three linguistic features (e.g. vocabulary, grammar or listening) and could not be regarded sufficient as stand alone sites.

The quality of content varied. Some sites had well-designed activities incorporating video, audio and authentic text. At *BBC*, the learner had the privilege to choose the medium of his/her preference and enjoy his/her learning. Quality has also to do with

the clarity of the contents' objectives for students to be able to follow the process of learning described in every EFL site. In addition, all activities should have clear linguistic targets that are evident to users. The evaluation showed that content clarity was better observed in the sites that dealt with one linguistic item, e.g. on-line grammars. However, *EMTL*, *OESL* and *TEFL* had different kinds of quizzes in random order and for various language skills, grammatical or lexical items. The level of language competence was not always clarified, and as a result, some drills may seem trivial for some learners or very demanding for others, further resulting in frustration or negligence.

University LL resources incorporated on-line tutorials on language theory for their international students primarily. *EAP* was an excellent site in this domain, as it provided theory, advice, strategies, exercises and references for the four language skills. Likewise, *WC* focused on writing skills and provided students with a theoretical background and examples concerning essay writing. Similarly, *CELT* had study guides for students on how to write assignments and dissertations. *OESL* also explored the theory of the writing process.

Concerning structure, the home pages of *EMTL*, *GE*, and *GS* were loaded with an enormous amount of links to activities, theory, resources and other options, without any sort of guidance. This may result in learners losing their way by accessing the wrong activities, or not being absolutely conscious of what they learn. Thus, a well-organised EFL site should provide some pieces of important information at a time. One example was *LE*, where learners have to choose among elementary, intermediate and advanced level before entering the activities. In *EAP*, learners need to select a learning skill. The evaluation showed that the most sequenced (i.e. advancing from less to more complicated grammatical features) sites were those dedicated on grammar (*GU*, *IGE*, and *LC*).

The nature of feedback in EFL sites was in the form of yes/right or no/wrong and there was hardly any variation in the way the computer rewarded or punished students. This indication was always in print and – scarcely - in audio format. It seems that once a site developer chose a particular way of providing feedback, he/she repeated the same pattern for every quiz. The advantage is that when students do one activity, they can easily carry out the rest since the feedback model is similar. However it can prove to be non-motivating or even worse boring. Feedback in every Internet activity was almost always followed by the correct answer and did not give the learner the chance to repeat the activity. Thus, feedback of the evaluated sites can be judged as plain, demotivating and restricting, without offering a second chance to learners.

In terms of input, all sites, and especially *EMTL*, *TEFL*, and *OESL*, incorporated a wide variety of topics without focusing on individual learner needs. This is reasonable if we consider the fact that these sites are regularly accessed by numerous international learners with diverse cultural, educational and social background. Under these circumstances however learning from scratch is not possible, (according to Krashen's input hypothesis, the learner should receive comprehensible input in relation to his/her interlanguage stage, $i+1$). *GE* was the only exception as the whole site had clear learning objectives and each module was thoughtfully structured. The second best resources were found to be those that exploited grammar. The *IGE* was a well-

structured site with simple and sufficient presentation of grammatical items and activities based on each presentation separately.

It is possible to claim that the most accurate and user-friendly way to assess students' performance on the Net is via multiple choice or Yes/No questions. Quizzes that require word or sentence answers may prove to be frustrating as the software used can identify as correct answers only exact matches. For example, in *OESL* basic grammar practice, learners are asked to type the interrogative form of the sentence 'The men like cats.' The only acceptable answer is 'Do the men like cats?' while the question 'Do men like cats?' is not considered correct.

Results – Human Computer Interaction (HCI)

HCI is the study of interaction between humans and computers (Booth, P., 1995:4), and it is technology as well as human-orientated. In educational technology, the major categories discussed are usability, learnability, and interface.

The usability of an EFL site is based on what students learn from the resource; if they like using it, if they make use of it, and how easy it is to use. In order to evaluate usability, we must define the target users of the evaluated sites. Target learners are usually separated in children, teenagers (under 18 years of age) and mature learners. All categories are not expected to master computer science in order to make use of the language resources. However, knowledge of Internet browsing, e-mail and word-processing is essential. For dictionaries, usability involves the simplicity with which unknown words are described. *CDO* used simple English to describe target words and had links that explained phonetic symbols in order to help students understand the transcriptions. Some EFL sites facilitated user access by including help buttons, site-maps, content pages, frequently asked questions (FAQs) or search engines. *LWD* help explained how the software worked assisting student access. *IGE* had a contents page, an alphabetical index and a search engine making it easy for learners to explore it. *LE* and *BBC* did not provide 'help' but had clear instructions for every activity with highlighted key words.

The learnability of the sites also varied. All dictionaries were found to be learnable, as the user interface was almost the same in every page. *GE* was also homogeneous and used the same metaphors for standard applications. Yet, *OESL*, and *TEFL* were overwhelmed with all kinds of resources that may mislead autonomous learners. The user interface is the intermediate link between the user and the machine. This link needs to be clearly structured and designed in order to ensure HCI and enhance users' participation. Main information and key-elements should be evenly highlighted and fonts should be carefully selected to attract students' attention. This principle was generally followed by all evaluated sites. Different kinds and sizes of fonts direct users' eyes to various language skills and activities. Apart from that, the user interface should appeal to the target group of learners. Depending on the age of the target group, some sites developed different user interfaces that matched users' preferences. *MWC* was designed for mature learners, making use of print and dark colours. However, it also had a link to a young learners' area with an interactive and colourful resource centre with graphics and animations. Another example was *LELT* that had three categories of target learners: young learners, teens and adults. The user interface changed according to the situation.

Results – Appropriateness and Effectiveness of Multimedia Applications

Audio applications were frequent but not always present. This medium was mainly used in listening-orientated sites and optionally incorporated in general English sites. Hardly can a user find video materials in EFL sites. Internet based EFL projects have usually low budgets and do not explore all media alternatives, unless they are absolutely indispensable. *BBC* was an exception as it incorporated video in reading and listening comprehension activities. Similar to this, *RESL* includes video to some activities regarding listening. University EFL sites did not have video applications apart from *OESL* where the video links available could only be accessed by the university's students. Video was usually very simple and mainly descriptive (e.g. sightseeing in Oxford).

Text and graphics were the two most common media found in ESL sites. Again, the quality of graphics could not be regarded perfect, and in some cases the graphic elements were found to be poor (e.g. *TEFL*). It becomes evident that EFL sites make apt use of print and graphics, whereas video and audio are marginally used and only when necessary for educational purposes.

5.0 CONCLUSION

All sites evaluated in this study were found to be well constructed making good use of colour, Internet design techniques, and HCI techniques, while the material presented was found to be accurate and of good didactic quality. Our evaluation also showed that the majority of the evaluated sites were behaviourist in nature although not fully repetitive (in terms of content) in order to create the desired habits. It is interesting to notice here, that once again and similarly to Computer Assisted Language Learning high technology was used to promote old-fashioned methods of teaching. Other more imaginative sites however presented language material in a variety of contexts (with cultural information) for learners to make the necessary associations of prior and new knowledge and become actively involved in their learning, while increasing cultural awareness. Some sites showed a clear didactic purpose and a good organisation in terms of material level and structure while a few offered opportunities for off-screen class discussion through adventure games. It is therefore desirable for Internet sites to declare the level, the teaching objectives, the desired learning outcomes and a suggested mode of use for teachers and learners. This will help teachers and learners to organise their teaching and learning (respectively) more efficiently. The use of multimedia technology seems not to be fully exploited yet for language learning purposes.

Finally, it is possible to claim that most EFL sites can be used for self-access purposes without the presence of a teacher but with the necessary support material (dictionaries, teacher notes, or grammar books). One basic prerequisite for this use is the level of students' language competence. Theory, instructions and activities in all sites are written in English, making it a difficult task for elementary students to understand each site's objectives. Clearly certain activities can be employed for class use, provided the Internet connection does not break and that teachers select activities that suit their course requirements and integrate them in their class.

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INTERNET SITES

1. LearnEnglish (LE) (http://www.learnenglish.org.uk/welcome_english.html),
2. Lingua Centre (LIC) (<http://deil.lang.uiuc.edu/>),
3. Longman English Language Teaching (LELT) (<http://www.longman-elt.com/index.html>), -
4. BBC's Learning English area (BBC)
5. (<http://www.bbc.co.uk/worldservice/learningenglish/index.shtml>),
6. English online-Materials for Teaching & Learning (EMTL) (<http://eleaston.com/>),
7. Global English (GE) (<http://www.globalenglish.com/>),

8. Internet Resources for Language Teachers and Learners (IRLTL) (<http://www.hull.ac.uk/cti/langsite/tefl.htm>),
9. Ohio ESL (OESL) (<http://www.ohiou.edu/esl/index.html>),
10. The Writing Center (WC) (<http://twc.cc.duq.edu/grammar/grammar.htm>),
11. Using English for Academic Purposes (EAP) (<http://www.uefap.co.uk/>)
12. Virtual Language Centre (VLC) (<http://vlc.polyu.edu.hk/>)
13. English Listening Lounge (ELL) (<http://www.englishlistening.com/>)
14. Randall's ESL Cyber Listening Lab (RESL) (<http://www.esl-lab.com/>)
15. CobuildDirect (CD) (<http://titania.cobuild.collins.co.uk/javademo/>)
16. Grammar in Use (GU) (<http://uk.cambridge.org/elt/inuse/default.htm>),
17. Self-Study Quizzes for ESL Students (SSQ) (<http://www.aitech.ac.jp/~iteslj/quizzes/>)
18. The Internet Grammar of English (IGE) (<http://www.ucl.ac.uk/internet-grammar/home.htm>),
19. The Learning Centre (LC) (<http://www.edunet.com/learning/index.cfm>),
20. TEFL site (TEFL) (<http://www.hull.ac.uk/cti/langsite/tefl.htm>)
21. Immediate Greek Translation (IGT) (<http://www.music.gr/systran/index.htm>)
22. Merriam-Webster's Collegiate Dictionary and Thesaurus (MWC) (<http://www.m-w.com/dictionary.htm>).
23. Grammar Safari (GS) (<http://deil.lang.uiuc.edu/web/pages/grammarsafari.html#Common>)
24. CELT centre (CELT)
25. (<http://www.stir.ac.uk/departments/humansciences/celt/resource.html>)
26. E.L. Easton (ELE) (<http://eleaston.com/>),
27. Great Books Online (GBO) (<http://www.bartleby.com/>)