Abstract

Globalisation has paved the way for the easy movement of goods and individuals and the cost-effective providence of services worldwide. In Higher Education, academic institutions have ceased to cater for the needs of their country’s students solely, as year by year the number of international students increases. New teaching approaches need to be considered, due to the fact that international students differ in cultural, educational, and linguistic background. A common feature shared by the majority of academic institutions worldwide is the instruction of English language for Academic or Specific Purposes (EAP/ESP). Trying to bridge the gap between students’ diversity and personal traits, new approaches in Language Learning (LL) need to be considered. To this end, the new advances in technology and specifically in telecommunications can prove to be of use. This paper favours the exploitation of Computer-Conferencing (CC) technologies for the current demands of EAP. It discusses the merits of synchronous and asynchronous communication and deduces that asynchronous communication is the most beneficial feature of CC in LL, for reasons such as reflectivity, interactivity, flexibility, cost-effectiveness, motivation, accessibility, collaboration and the pedagogical outcomes of the print form of oral communication. In conjunction with general findings in LL, the paper attempts to approach the role of CC learning environments in EAP. After a needs analysis regarding an ESP course, the paper presents a model of CC implementation into the traditional EAP classroom in accordance with the four language skills.
Computer-Conferencing in EAP in the Threshold of the Multicultural Higher Education.

I. INTRODUCTION

Telecommunications in the Information Age have turned the world into a global village. The World Wide Web is the information ‘Superhighway’ that encompasses loads of references and connects people worldwide. In the century of globalisation, English language has gained international status and is unofficially acknowledged as an international language. The demand and need of people of different age, vocation or educational background to learn English has induced innovations in the way English courses are offered nowadays.

In accordance with the rapid growth of the demand for more efficient and cost-effective English language learning, many companies and educational institutions have decided to initiate and enhance English as a foreign language (EFL) and especially English for academic or specific Purposes (EAP/ESP) via computer-conferencing (CC) for their students or employees. These LL CC environments are taught over the Internet, and are tailored to the specific needs of a corporation or a university.

Information and communications technologies (ICTs) are already established in HE and influence the configuration of university courses. However, Jarvis continuous, ‘information technology, despite its widespread prevalence…has not yet established itself as a major EAP component, and this is reflected in a regrettable lack of literature on the subject’[8]. This paper attempts to establish a rationale for the instruction of EAP/ESP via ICTs.

II. COMPUTER-CONFERENCING IN LL

The basis of CC is communication by written messages, accessible by a group of users at any time and from every place. As Mason points out, this type of delivery ‘has no non-electronic counterpart [and] it is an amalgam of letter writing, group discussion and newspaper’[15]. CC systems are collaborative learning environments that include group communication facilities. They are password protected on-line environments where learners can log on and engage themselves in dialogue with their tutors or their peers.
The Information Superhighway has made CC very common in distance education and in other education and training settings. Regarding LL, it is proved that successful traditional on-campus teaching materials do not cater for self-learning, do not provide enough teacher input and, principally, cannot promote interaction and collaboration between peers [19]. CC is being used as a secondary delivery mechanism either for distance learning (DL) or on-campus students. It can complement face-to-face tutorials in order to support open learning and self-access or work in conjunction with print-based materials during a DL course. In both cases, the outcomes of CC in LL can be positive due to the ability of the system to establish peer or even intercultural communication.

III. ASYNCHRONOUS COMMUNICATION AND LL

Synchronous learning environments, that is same-time and different-place communication, is suitable for collaborative learning, group and pair work that require synchronization of the participants and setting of timetables and deadlines [21]. Synchronous teleconferencing includes audioconferencing, audiographic conferencing and videoconferencing.

Computer mediated communication (CMC) and CC represent the most recent developments in telecommunications technologies and provide communication which can also be asynchronous in form. Different-time, different-place communication is a revolutionary approach that can accommodate a large variety of students and create learning communities. In LL asynchronous, text-based computer-conferencing is usually preferable for a number of reasons.

Reflectivity and Interactivity.

Time-delayed communication is usually preferable because it can increase both reflection and interaction in language learning [11]. Reflection in LL allows learners to acknowledge their constraints and overcome them. Students as well as tutors are able to reflect on their responses and to think carefully before constructing their next message. Mason accords with this view saying that ‘asynchronous systems allow time for reading messages slowly and composing a response with the aid of a dictionary’[15]. Consequently, language learners have time write down their ideas, use the right grammar and vocabulary and produce more refined utterances. Learners
should reflect on their learning and evaluate their progress both individually and collectively.

The fact that a considerable amount of learners cannot consciously relate linguistic competence to sociolinguistic competence, that is the relationship between learning and using a language, accents the importance of integration of reflectivity and interactivity in LL. Warschauer refers to the marriage the interactive and the reflective nature of language and assumes that ‘computer-assisted communication offers an ideal environment for learning language through use, that is to say through the experience of using language and reflecting on this use’[1]. According to Sims, ‘e-mail is deliberate in that the writer has the opportunity to plan and organize the discourse’ but it also contains the spontaneity of oral discourse [25]. It is proven by research that students are in favour of CC asynchronous communication, for, unlike classroom interaction, they have enough time to consider their peers’ thoughts and think about their own responses, therefore they become more comfortable and confident with their interaction [26].

**Print Media and Oral Communication.**

In CC, speech and writing appears as a single activity. As ‘most people are more able to write than to speak in another language’ [17], text-based media facilitate interaction for those communicating in second language. The main priority of spoken language is meaning than form, thus resulting in shorter sentences, easy grammar, simple vocabulary. ‘Asynchronous communication is carried out in a well-reasoned, non-spontaneous environment’ [24] where the students can maintain their ‘face’ and increase their self-assurance. Consequently, CC increases students’ personal competence by motivating even weak or shy students to communicate in the target language (TL).

Reflective learners belong to this group of students who tend to retain and understand information best when they think about it quietly first. The postponement of interaction enables them to reflect on themselves and work on their own. Likewise, Mason refers to the example of the academic who likes to consult references or form an argumentation [15]. CC is a reliable system for all these kinds of people who choose to cogitate before communicating.

**Flexible, Autonomous Learning.**

The element of pace is one of the principles of flexible learning. Adult learners should be free to make their own time management [23] and able to take time to study
an idea or proposal and respond to it at their leisure. Self-pacing and freedom in setting learning goals are virtues that distinguish the autonomous and successful learner. Flexible learning is grounded in the principles of autonomous, independent and self-access learning which acknowledge that the learner is a unique individual with his/her own needs and preferred learning styles. Mason, a devout supporter of asynchronous learning environments, claims that computer conferencing ‘requires much more self-direction, motivation and initiative on the part of the student than do most other media.’ [17]

The new type of language student with work or study responsibilities is searching, according to Möllering, for more and more flexible modes of programme delivery that will facilitate his/her learning and will stand in for the traditionally timetabled on campus classes [19]. Asynchronous communication, unlike the traditional classroom environment, can facilitate flexible learning by enabling efficient learners to progress more quickly than weak students.

**Aptitude and Motivation**

The innate characteristics of learners vary across individuals, make some people more gifted in language learning than others and influence their perception of the world and language learning in particular. Larsen-Freeman and Long consider as undeniable the fact that ‘individuals learn languages at different rates’ while Carroll suggests that aptitude depends on the combination of an individual’s enduring characteristics [12]. When language learning materials are delivered via ICTs, it is possible for the learners to approach same material in different ways, by changing media, that suit their learning styles. CC is a device that enables high aptitude students to take control of their own learning and to obviate the slow and repetitive classroom situation. On the other hand, low aptitude learners need more help in organising their learning and get guidance from the tutor or their peers.

Motivation and positive attitude can be enhanced by CMC. Intrinsic motivation, that implies the learner’s positive orientation towards the learning task, generates capable, self-directed learners with successful outcomes in LL. In order to improve motivation and impede reduced student interest, learners should be able to approach linguistic tasks in ways that suit their individual characteristics. As Esch and Zähner point out, ‘intrinsically motivated students tend to succeed better at learning experiences which are contextualised and embedded in real life’[2]. CC systems, as opposed to correspondence, video or audio delivery, are advantageous in that they
offer dynamic communication and active participation potentialities.

**Accessibility and Cost-Effectiveness.**

Text-based asynchronous technology requires little bandwidth and low-end computers to operate. Thus, time-delayed communication usually implies lower development and operating costs, compared to satellite broadcasting [10]. Supposing that students have easy access to a personal computer and Internet connection, asynchronous communication can prove to be one of the most inexpensive ways of learning a foreign language.

**On Line Communication and Collaboration.**

Cross-cultural communication and knowledge of the target language are crucial elements in language learning. CC systems can serve the communicative purposes of a foreign LL course in various ways. The kinds of interactions involved are briefly mentioned and they can involve non-native speaker (NNS)-NNS, NNS-native speaker (NS) and learner-tutor communication [14].

NNS-NNS collaboration enhances ‘active learning’, ‘through the sharing of doubts, questions, and comments that the learning process is complemented’[6]. On-line communication between NNSs increases significantly the rate of language use, due to the fact that the asynchronous nature of CC communication does not restrict learners and does not impose same-time interaction. As a result, pair and group work ceases to be a complicated endeavour because the system allows learners firstly to work independently and then to ‘meet’ at a predetermined time in order to engage them in collaborative work.

NS–NNS communication places learners in an authentic environment of language use. Language is a living entity, which means that is flexible and changeable just like the history of the nation that it represents. Language learners are challenged to construct comprehensible sentences, to follow the conversation and to understand the NSs’ responses. Consequently, CC environments can transform language learners into competent negotiators in the TL that can also enhance their prospects of employability in the future.

Non-real time communication is beneficial for students because they can communicate in different time and place and they dispense themselves from the fear of annoying their tutors by catching them in an inconvenient time. Asynchronous interaction assures communication of meaning, discreteness and respect for others’ right for privacy. Likewise, asynchronous communication gives tutors the
opportunity to think carefully on the kind of feedback they are going to provide their students with. In language learning via CC, the scrupulous tutor is the one who acknowledges his/her role as a mentor, a facilitator and a language advisor and realises his/her duty to give personal and extensive feedback to students.

IV. CC IN EAP

EAP and Needs Analysis

The expansion of English had a strong impact to a large number of people, who desired to learn this language for specific reasons. One established and wide-ranging definition of EAP is that ‘EAP is concerned with those communication skills in English which are required for study purposes in formal education systems.’ [3]

Broadly speaking, the term ‘needs analysis’ includes the investigation of the objectives, necessities, purposes and deficiencies regarding a particular EAP course. The term ‘target needs’ signifies, according to Hutchinson and Waters, the evaluation of the target situation in terms of ‘necessities, lacks and wants’[7]. Particular attention should be given to the analysis of the present and the target situation, that is the level of students’ language performance at the beginning of the course and the main objectives that need to be pursued in order to reach the target level. It is also important to acknowledge the learner’s individual wants and the reasons of attending the EAP/ESP course.

The ‘learning needs’ constitute the second component of needs analysis. Learning needs analyse how learning takes place, which path learners follow in order to reach the target situation and what limitations or prospects learners face in the meantime. Given that background, Hutchinson and Waters advocate that there is a critical distinction between ‘learner-centred approach’ and ‘learning-centred approach’ in EAP/ESP. They consider that the learner-centred approach indicates that learning is ‘totally determined by the learner’, his/her individual abilities and motivation. For this reason, they agree that such an approach is not realistic nowadays, due to the institutionalised nature of LL and the fact that learning is not only an inner process but it is also determined by external factors, and they are in favour of the learning-centred approach.

The Implementation of CC in EAP Regarding Needs Analysis

Needs analysis, in a given situation, is the framework that determines the structure of a course. In a traditional face-to-face classroom environment, EAP courses cannot
cater for the needs of individual learners. In recent years, the majority of British universities offer EAP courses for foreign and British students. These courses consist of students of various disciplines and with different ethnic and cultural backgrounds. The reason for this diversity is that students have usually different course timetables, which makes the tutors’ attempt to form homogeneous classes impossible. Consequently, these students have different levels of English proficiency, learning styles, strengths and weaknesses, preferences and expectations from the language courses. Strictly speaking, these learners have divergent ‘necessities’, ‘lacks’ and ‘wants’. The weaknesses of the traditional mode of delivery can be reversed with the implementation of CC.

Each discipline has frequent discourse, vocabulary and structure, that is, frequent linguistic features. For instance, a student taking an ESP course on business should learn how to write business letters, what language to use in a meeting and how to communicate with his/her colleagues. These are some of the learner’s ‘necessities’, which cannot be materialised during a general EAP course. However, a learner can pursue his/her individual target situation individually or collectively via CC. A CC EAP module component can supplement the face-to-face tuition allowing learners to access the environment in their pace and work or discuss with others on their subject-matter. Consequently, the time spent in the classroom will be dedicated to the instruction of study skills and general English, while the CC module component will enhance further specialisation.

Secondly, students’ individual ‘lacks’ can be better encountered in an on-line environment. Through assignments, group work or messages sent by e-mail, the tutor can concentrate on each student separately, isolate each student’s strengths and weaknesses, give extensive personal feedback and assign different tasks in order to bridge the gap. Students can actually discuss their weaknesses in language with their tutor in private and not in the presence of their peers. In advance, the tutor can act as language advisor and engage students of similar level in group or pair work on-line.

Thirdly, a CC, EAP module component is the most convenient delivery mechanism that can actualise learners’ ‘wants’. According to these circumstances, students from various disciplines and divergent cultures have different preferences and tastes. In the CC environment, students will learn how to work autonomously and engage themselves in activities that they regard motivating. Likewise, students can browse in the Internet in order to find resources of their taste and acquaint themselves with
subject specific knowledge. In such a contingency, these resources can be stored in folders accessible and retrievable by all users of the CC environment. Thus, students will acquire responsibility in respect to their own and their peers’ learning.

Finally, as far as the learning needs are concerned, a CC, EAP module can offer learners the freedom and choice to follow the learning path that suits their learning styles and their level of proficiency. CC learning environments consist of pathways, which are areas that depict the units of the course. Every unit contains supplementary tasks to face-to-face tuition, the study skill or linguistic features taught in each unit or the actual tutor’s lecture. Depending on the openness of the system, these units can be accessed in a non-linear way, giving thus the opportunity to students to direct their own learning and follow the ‘path’ they find most suitable.

To summarise, the merits of CC match the needs analysis of an EAP module and particularly, of each student individually. Now, we will discuss the strengths of the system regarding more specific issues in EAP tuition and we will shed light upon the importance of learner autonomy as well as the teacher’s role in the delivery of an EAP course via CC.

**The Instruction of EAP Language and Study Skills via ICTs.**

An effectual course design in EAP should consist of the instruction of language and study skills and general and social English. It is believed by Jarvis that ICTs as an EAP course component facilitates the development of language and study skills and it can also ‘help bridge any possible gap between the skills of NSs and NNSs entering onto a university course’ [8]. Language skills in EAP are divided in two categories, the ‘receptive’ category, that includes academic listening and academic reading, and the ‘productive’, which includes academic speaking and academic writing [9]. Accordingly, study skills are the strategies and techniques used by native or non-native EAP students during their study that help them understand academic discourse and acquire good command of language. Shortly, we are going to describe the EAP areas in which ICTs and especially CC can be beneficial.

**Academic Reading**

The development of reading skills in EAP students constitutes one of the main objectives of an EAP course. The core reading skills learners need to employ are skimming and scanning skills. Skimming skills help learners read quickly in order to find the main idea of the text, while scanning skills imply the search for a particular piece of information. As Flannery claims, ‘hyperlinked menus - where readers click
on highlighted words, phrases, or images and move to another section of the page or site - facilitate the use of these skills.’[4] Indeed, on-line learning environments have hypertexts that ease students’ endeavour to search and gather subject specific information. A course design in CC mode helps students acquaint themselves with reading skills similar to those needed for academic purposes.

Apart from that, tutors can introduce learners to web sites that may be related to course content and students’ interests. This is a realistic hypothesis, bearing in mind the fact that EAP students are adult learners who are usually in an intermediate and advanced level. Authentic, subject-specific, on-line resources create a ‘real world’, motivating learning space, in which students can be engaged in the practice of skills such as deducing and inducing, reading between the line, guessing the meaning of unknown words or understanding graphic and text representation, even during their spare time.

In consideration of the above arguments, CC on-line environments facilitate the acquisition of reading skills, while the tutor provides students with links of their preference. Students’ motivation, which is the result of authenticity, and the flexibility in terms of time and place of students’ access are the main strengths of on-line course delivery.

**Academic Writing**

Reading is linked with writing. They are both text-based only the first is a receptive and other a productive skill. In truth, academic writing is a creative process and involves the negotiation of meaning and the manipulation of ideas. Writing on-line constitutes a natural response to Web reading as learners reply to articles, request or provide further information on topics, and register complaints [4]. The abundant information available in the form of articles, essays, advertisements or personal opinions through the WWW requires learners to employ writing skills such as summarising, paraphrasing and synthesising. These skills are important aspects of academic writing as they help students find and make productive use of resources in order to write reports, assignments or make oral presentations.

In addition, word-processing, being an established medium in academic writing, has introduced a new group of writing skills that include copying files, creating directories, and naming of files [8]. Strictly speaking, these study skills have initiated a new era of academic writing, expecting students to adjust to the new situation. Course delivery via CC enhances students’ performance regarding word-processing
students. Students, in plainer terms, are expected to deal with these skills on a daily basis by sending or answering e-mails and work on-line.

Furthermore, CC can enhance the quality of feedback and evaluation. The importance of feedback as well as the virtues of self- and peer-evaluation are well accepted and recognised. Adult learners in HE need to take responsibility for their learning and grow into autonomous learners in order for them to meet the demands of the status quo in the global market place. CC learning environments create virtual communities where learners and tutors are free to comment on each other’s work, express their own views and discuss about the subject matter of assignments and projects. Thus, students develop a critical mind and try to produce scholastic work, while the teacher’s time can then be spent in other ways (e.g. materials production, counselling or management).’ [5]

Also, the informality of student-support systems offers students ‘a user-friendly environment in which to voice concerns and to dictate the content of sessions’ [20] and lead in good performance in assignments. In advance, Leppänen and Kalaja encouraged peer-evaluation via CC during an EAP course and proved that students’ comments and feedback differed in quality from the tutor’s ‘red pen’ corrections and that this situation helped students use argumentation skills as well as deploy ideas for essay content and organisation [13]. Likewise, CC persuades students to see writing as a pre-writing, writing and rewriting process that contributes to the advanced quality of the assignments due to immediate feedback and peer-evaluation.

In distance learning as well as in campus based universities delayed feedback is inopportune and sometimes discrediting for the institution. As Mason advocates, assignments sent via CC can reach their destination quicker than via postal services, whereas the content of the assignment is not distorted and the feedback is received while the students’ work is still in progress [16]. The power of CC lies in the fact that students can comment on their peers’ ‘emerging ideas’, which can be ‘refined, clarified and developed’, as messages or assignments can be stored centrally and accessed by all participants. Thus, EAP students can play the part of the tutor and cast a critical eye over academic writing.

Finally, weak students are able to get support and be inspired from the work of their peers as assignments with the highest marks can be posted in the conferencing system ‘so that others can see and learn from the best work’[16]. Academic writing is therefore enhanced and promoted and constitutes a prompted activity incited by
collaboration and interaction.

The only barrier to the success of CC in this domain is the issue of misunderstanding. The rationale of the assignments must be clearly stated and the terminology used should be plainly explained by the tutor. In plainer terms, the tutor should try to use clear and plain English during the assignment of projects to students, ensuring the clarity and accuracy of their communication [18].

**Academic Speaking**

Namely, in CC students also use written language as a medium of communication with their peers and their tutor. Studies have shown that CC enables communication between learners to be sustained and prolonged. Particularly, in EAP, learners can both increase their language proficiency and at the same time acquire competence in talking about their research and their discipline in English.

The main situations analysed in speaking for academic purposes include participation in seminars, asking questions in lectures and making oral presentations. They should also learn how to ask for clarification and repetition of an idea, how to challenge, how to express their agreement or disagreement, how to verbalise a thought and how to follow the sequence of an argument. Some of the most common difficulties EAP students face are ‘fluent conversations at an Informal level…formal subject discussions [and] the expression of personal viewpoints’ [22].

Unlike face-to-face teaching, the teacher’s role is peripheral whereas students usually dominate CC virtual classrooms. Students are free to discuss and to control what, when, how, where to interact. Thus, the prospect of using English for communication is increased, as students can interact asynchronously and in their pace. In view of the circumstances, the tutor’s major task is to introduce discussion topics in the CC environment and let the peers expand the conversation. If these tasks are being assessed, then the students will concentrate more on the tasks and will be cautious of their argumentation. Apart from that, the tutor can separate learners, form smaller groups with students of the same subject and present them with discussion topics relevant to their discipline. Accordingly, Huckin stresses the importance of case studies and role-plays as a means to provoke students use sound arguments and effective communication skills [9].

In conclusion, CC can help learners who suffer from shyness or speech difficulties to hold the floor and participate dynamically in a conversation. These students usually prefer to work independently and do not participate in class discussions. CC
enables learners to speak, without being heard or seen by their peers or the tutor. Thus, they can also exercise communication skills with the rest of the class.

On the whole, a CC module component in EAP is able to change student dynamics and increase interaction between peers and tutor. Learners can communicate both formally and informally, depending on the nature of the task, that is, if the task is assessed. Both discourse types are important in EAP, because they help learners acquire both formal and informal communicative skills.

**Academic Listening**

Being primarily a print-based medium, CC by itself cannot promote the acquisition of listening skills. The main problems academic listening aims to solve are decoding the meaning (e.g. of lectures), understanding the main points and note-taking. For this reason students should acquaint themselves with the phonological rules of English, with suprasegmental features, like intonation and stress, and with the means to analyse discourse.

The tutor's role is significant in this case as he/she can exploit to the best the capabilities of the environment. One possible solution is to post audio files with lectures or presentations from various disciplines at the central area of the CC environment and followed by tasks, so that learners can self-access them on their leisure. The tasks may include the identification and utility of lexical discourse markers, prosodic features, silence, floor taking, markers or subordination. Accordingly it would be convenient that these posted lectures are already analysed during a face-to-face session and that students can use the CC system for information retrieval.

The WWW also offers the possibility to listen to news broadcasts, historical speeches, and films. In such an event, the tutor should be able to search and select the most appropriate resources out of the abundant and in many cases improper information available on-line. These sound files can be easily stored in the area of Internet resources, accessed and replayed by students who study independently.

Surprisingly, even though CC environments do not usually support oral communication, academic listening can be taught and exercised on-line. The burden lies upon the tutor’s will and determination to utilise every possible capacity of the system.

V. CONCLUSION
The convenience of CC learning environments lies in the fact that they allow students to study at their own pace while they learn English language with reference to their business or academic needs. Such on-line EAP/ESP distance learning programs offer personalized and interactive instruction, where both learner autonomy is fostered and the working and personal relationship between tutor and peers is augmented. The lack of national borders, the cost-effectiveness and the convenience of these systems are the main reasons that contribute to the spread of CC in higher education LL sector, and particularly in EAP/ESP.

REFERENCES


