Collaborative Autonomous English Language Learning in CALL

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Introduction

The explosive growth of technology has affected almost all cities and villages around the globe. This century might be deemed to be the era of technology. Computers were amazing key technological invention of the 20st century and were first used for military purposes many years ago in both America and Britain. Now that we are living in a technological village, each successive generation is more dependent on technology. There is at least one computer and one mobile phone in most homes and it is possible to access cyberspace and obtain endless amounts of information whilst on the move. Internet access is also readily available, at low cost and often free of charge.

There has been much interest recently in using the computer, and its applications, for teaching and learning languages such as English. Utilizing computer-mediated instruction in English teaching has expanded in the last two decades. This is mainly due to the fact that computer mediated communication tools, along with the Internet, have led to many practicable outcomes; there is a strong tendency to integrate new tools into the teaching and learning process and indeed "previous research indicates that computer-mediated language learning can facilitate communication, reduce anxiety, encourage oral discussion, develop the writing/thinking connection, nurture social or cooperative learning, promote egalitarian class structures, enhance student motivation, facilitate cross-culture awareness, and improve writing skills" (Yang & Chen, 2007).

Furthermore, many educational specialists have identified and responded to the remarkable impact of computers on the learning process. Since the 1960s Computer Assisted Language Learning (CALL) has been used widely in language teaching. "As we enter the 21st century, everyday language use is so tied to technology that learning language through technology has become a fact of life with important implications for all applied linguists, particularly for those concerned with facets of second language acquisition (SLA)" (Chapelle, 2001).

This paper explores the profound impact of CALL on teaching and learning English as a foreign language. In particular it reveals the huge impact on collaborative and autonomous English language learning of newly invented tools for Computer Mediated Communication (CMC), i.e. wikis and blogs. It also shows that implementing technology, along with the Internet in learning, is based on sociocultural theory in which collaborative learning is an essential element. Not only has literature been reviewed, but data was also collected to reveal to what extent modern technology affects the language teaching and learning process.

These pages are divided into three main chapters. Each one includes subheadings which are linked to the main topic. These pages begin with a brief history of CALL and its efficacy in English language teaching and learning. Then, the Internet and its significant contributions to the learning process are discussed. Chapter 2 is dedicated to covering CMC tools in general, and wikis and blogs in particular, and their use in collaborative autonomous learning. The last chapter concludes with the importance of CMC tools and their usefulness in language teaching and learning in general and English in particular.

Chapter One: Computer and Language Learning

1.1 Introduction

Technology today is considered to be an essential part of life; mobile phones, laptop computers and video games are some examples of this. Many people who were previously technophobes have been attracted by contemporary technology and become technophiles. “Technology is becoming increasingly important in both our personal and professional lives and our learners are using technology more and more” (Dudeney & Hockly, 2007). Within the broader field of Applied Linguistics, CALL might be placed at the crossroads of different disciplines. While Levy (1997) regards studies in psychology, artificial intelligence, computational linguistics, instructional technology, and human–computer interaction as primary influences, Chapelle (2001) places CALL within six computer-related sub-disciplines: educational technology, computer-supported collaborative learning (CSCL), artificial intelligence, computational linguistics, corpus linguistics, and computer-assisted assessment. Beatty (2003) states that CALL is considered to be a young branch of applied linguistics and, that it is therefore, still establishing its potential applications.

Although there are many definitions of CALL, all of them involve the same concept to a certain extent, in that they promote the use of technology in language teaching and learning. Levy (1997) defines CALL as “the search for and study of applications of the computer in language teaching and learning”. Chapelle (2009) defines CALL as “a variety of technology uses for language learning including CD-ROMs containing interactive multimedia and other language exercises, electronic reference materials such as online dictionaries and grammar checkers, and electronic communication in the target language through email, blogs, and wikis”. The development of CALL might be divided into three main phases; Structural CALL, Communicative CALL and Integrative CALL. Each stage is based on a different theory of learning. What is more, the model of instruction and the view of L2 acquisition at each stage are not the same. In the following sections, the three phases will be described, and how the computer is used in the language learning process according to the availability and improvement of technology in each case.

1.2 A Brief History of CALL

There are different acronyms relating to technology and language teaching and learning, CAI (Computer-Aided Instruction), CAL (Computer-Assisted Learning), CELL (Computer-Enhanced Language Learning) and TELL (Technology-Enhanced Language Learning), to name but a few. Gruba (2004) states that CALL is widely regarded as the central acronym to refer to all studies relating to second language and computer technology. Although each acronym has specific meaning and function, the main goal of CALL is described by Cameron (1999) as to "improve the learning capacity of those who are being taught a language through computerized means".

Historically there have been three development periods pertaining to CALL; structural, communicative and integrative. It must be noted that the beginning and the end of these stages are not well defined. Although each stage has pros and cons, each one does contribute to the language learning process. The great improvement of technology in data transfer speeds and storage size is deemed to be one reason to change from Structural CALL to Communicative CALL and then to Integrative CALL. "The high speed and storage capacity of videodisc technology made it possible for computer to go beyond behaviourist models of instructions commonly used on less powerful computers that generally relied upon textual exercises" (Beatty, 2003).

1.2.1 Structural CALL

The first approach of the CALL development phase is Structural CALL, sometimes known as "Behaviouristic" or "Behaviourist", was approximately dated over the 1960s and 1970s. It was based on the behaviourist theories of learning, although Bax (2003) argues that the first CALL approach should be named "Restricted" rather than Behaviourist. This is because the term "Restricted" refers not only to the underlying theory of learning but also to; the actual software and activity types in use, the teachers' role, and the feedback offered, which are all restricted. "The term is more comprehensive, more flexible and therefore more satisfactory as a descriptor".

Despite the different opinions regarding the name of the approach, the focus was on grammar-translation and audio lingual approach. The emphasis was on the machine rather than the learner. Learners were supposed to be accurate in their language usage using fixed pre-programmed instructions. As there was no choice for learners, they were totally dependent on the applications of rubrics. “Grammar-translation and audio-lingual methods, grounded in behaviourism, went hand in hand with programmed instruction. Students were able to repeat drills with the seemingly tireless and patient computer-as-tutor, and instruction appeared to be at an upmost efficiency” (Gruba, 2004). Specific programmes were designed in this phase to enhance learners’ linguistic skills, such as grammar. Underwood (1984) states that a large quantity of computer software was developed which focused on a single activity, such as text reconstruction, gap filling, speed reading, simulation and vocabulary games.

While this stage was restricted to mainframe computers which were not cheap, many interactive educational systems were developed to help students read; for example, scientific texts. A well-known example is PLATO (Programmed Logic/ Learning for Automated Teaching Operations). Ahmad et al, (1985) state that the PLATO system, which ran on its own special PLATO hardware including central computers and terminals, included vocabulary drills, brief grammar explanations and drills, and translation tests at various intervals. It seems this stage depended heavily on drill-and-practice process which was not seen as spurious. As Warschauer (1996) confirms the nature of the computer, which never gets tired, facilitates this process and tailors the exercises according to individual needs and gives prompt non-judgmental feedback. He also assures that repeated exposure to the same material definitely helps the learner to increase their practise.

However, Structural CALL was criticised for not involving communication. It did not encourage learners’ motivation and the learning might be seen as isolated process. It only focused on drill-and-practice skills, which are also known as drill-and-kill tasks. Warschauer (1996) mentions that proponents of this approach felt that drill and practice programmes did not allow enough authentic communication. Another critique was made by Stevens (1989) who confirmed that courseware and activities had to be designed based

on intrinsic motivation and this should foster interactivity for both leaner-computer and learner-learner. This combined with the development in technology led to a shift towards a more communicative learning method, which is known as Communicative CALL.

1.2.2 Communicative CALL

Communicative CALL was used from the late 1970s to the early 1980s. In that era there was a need to design and develop learning programmes based on communicative tasks. This was in fact achieved and facilitated by the approach of the Personal Computer (PC). Gruba (2004) confirms that the use of expensive mainframe computers had been phased out by the onset of the microcomputer boom in the late 1970s. Language learners were able to communicate more effectively rather than merely practice based on drills. It seems that there was greater focus on learner-learner communication skills supported by computers. Underwood, (1984); Jones & Fortescue, (1987); Phillips, (1987) show that advocates of communicative CALL require the linguistic focus to be on using the forms, rather than forms themselves, motivating learners to generate original utterances and utilise the target language exclusively.

With the approach of cognitive constructivist learning theory, communicative CALL was employed to help learners to be independent and use their mental abilities for their learning. Gruba (2004) states exercises were designed to promote meaningful interaction and promote fluency in language learning. According to Underwood (1984), there are some reasons that make communicative CALL different from Behaviouristic CALL such as; teaching grammar is more implicit rather than explicit, having roles which a book cannot achieve, accepting wrong responses from learners and giving more flexibility to correct the errors. This in fact confirms the principle of trial and error. The computer in this phase was considered to function not only as a tutor but also as a stimulus for discussion and interaction and as a tool for writing and research.

Compared to the previous CALL approach, many pedagogical programmes, promoting language skills, were developed and students had more flexibility and control over the

learning process. Warschauer (1996) states the process of finding the correct answer involves a fair amount of student choice, control and interaction. He also confirms not only were learners encouraged to spot the correct answer but also to write, discuss and think more critically. To name some programmes which were not necessarily created for learning purposes, "*Sim City* and *Where in the World is San Diego?*" (Healey & Johanson, 1995) it seemed that most computer software was designed for the purpose of comprehending language rather than building up language skills.

With the remarkable advances of computer technology in the late 1980s and early 1990s and the considerable growth of multimedia use, communicative CALL was criticised for only focusing on "marginal elements rather than central elements" of the language teaching process (Kenning & Kenning, 1990). This in fact led to a great need for a more integrative approach, which was simplified by multimedia and Internet technology. Warschauer (1996) confirms that a number of language teachers were seeking new ways to teach in a more integrative manner.

1.2.3 Integrative CALL

By the early 1980s and with the advent of multimedia technology, the last CALL phase was initiated. This stage might be considered as the real beginning of the active implementation of computers in language teaching and learning. Gruba (2004) confirms that teachers were able to write and modify computer applications to fulfil the educational needs they identified, and then students would be exposed to those programmes both at home and on campus using their PCs. Integrative CALL process is known as the multimedia and the Internet stage. While Bax (2003) argues that this phase has to be called "Integrated" instead of "Integrative" because it does not exist to a significant degree yet but represents an aim toward what we plan to do, Warschauer (1996) confirms that the computer was used as a medium of global communication and a source of limitless authentic material. Furthermore, the Internet promoted teacher-learner interaction and motivated cross-cultural communication by using some tools like emails and chat

programmes. The multimedia technology, involving CD-ROMs, allowed language learners to have easy access to pictures, sounds and other animation from a single PC. What really makes multimedia useful is that it often contains hypermedia. Warschauer (1996) describes hypermedia as a multimedia resource, which is linked together and that learners can navigate their own path through simply by pointing and clicking a mouse.

At the outset of the 21st century integrative CALL is deemed to be the most preferable approach. Learners are supposed to be collaborative rather than independent. This means that learners' mental abilities are used in social contexts. This in fact goes hand in hand with the principles of sociocultural theories of learning. Gruba (2004) states integrative CALL helps to make the most of networked computers to engage learners in meaningful, large scale collaborative activities. Integrative CALL aims to foster learner's agency rather than fluency. "The satisfying power to take meaningful action and see the results of our own decisions and choices" (Murray, 1997).

The major distinction between communicative CALL and integrative CALL is that the latter leads to more freedom in second language acquisition than the former. Gruba (2004) confirms that in communicative CALL, learner choice and self-management of the activity are driven by a task-based approached and the design of the syllabus, whereas the syllabus in the integrative CALL is a more dynamic blueprint which indicates that learning might happen by accident. While multimedia technology facilitates integration of language skills such as listening and speaking, it fails to promote another significant type of integration which Warschauer (1996) describes as the "integration of meaningful and authentic communication into all aspects of the language learning curriculum".

To summarize, the three CALL phases might coexist, although they did not develop simultaneously. It seems that every successive phase was based on the previous one. Warschauer (1996) confirms that the introduction of a new phase does not necessarily involve the rejection of the programmes and methods of the previous one, but it can be subsumed within instead. Moreover, there might be a use of one phase's methods and

applications to complement the other. Bax (2003) states many of the programmes developed today are related to the first CALL approach.

1.3 CALL and ELT

Technology and language education might be dated to the sixties when language laboratories were used as learners' stimulus. Singhal (1997) states that lab activities were grounded as a stimulus-response behaviour pattern. However, some problems emerged; the contact between the teacher and the learner was limited, activities used were boring and tedious as they only improved specific skills, for example, listening. Therefore, there was a strong tendency to shift to a more communicative approach using CALL. CALL offers various activities for learners to improve their language skills with some CALL applications including grammar, vocabulary, pronunciation, writing tutorials, to name but a few. Armstrong & Yetter-Vassot (1994) mention that many argue that learning and practising grammar rules on computer does not necessarily improve a speaker's ability to produce grammatically correct utterances.

Implementing and using computers in language teaching has advantages and disadvantages. There are many educational programmes which support interactive learning modules. Educational Software Products (ESP) is a famous company which designs and produces educational software aiming to create innovative and genuinely interactive software for students of English as a Foreign Language. It also aims to mix expert English input and interactive entertainment. In addition there are a number of programmes specifically designed by official publishers, such as Cambridge and Oxford. Electronic dictionaries are good examples of these and Chapelle (2001) urges the creation of software applications that are designed specifically for language acquisition use and research. As a large number of students are acquainted with modern technology they are always motivated when learning via computers. They admire the notion which states that learning should be fun and exciting. "We found that computer conference can be a useful English language teaching tool that raises students' motivation by increasing their

confidence, encouraging them to become part of a group, and broadening their range of writing skills" (Skinner & Austin, 1999).

The need for using modern technology in some pedagogical methods has been recognized by many educators. Ahmad et al, (1985) confirm that CALL comes from a combination of two separate factors: educational needs and technological means. Lee (2000) recommends using computers in language teaching and learning for some sound reasons such as; learners' motivation, independence from a single source of information, global understanding, greater interaction and authentic materials for study. In addition, class participation, which is considered by many teachers as a good indicator of students' comprehension, is remarkable with CALL. Kelm (1992) discovered that in his experience using the Computer-Assisted Class Discussion (CACD) in the English Department at the University of Texas helped to increase the participation of all members of the class. Also, hesitation and stress mostly disappeared. One of his students wrote "I participated 600% to 1000% more in the lab than I do in class. I feel it is easier to communicate through this vehicle. I admit that I am slightly reserved but with the INTERCHANGE (name of the programme used) it is easy to communicate freely and say what is on your mind without the pressure of speaking before the classroom". Gruba (2004) mentions CALL practitioners have been recognizing that computer environments themselves can motivate many students. What is more, using CALL helps students to acquire a lot of information and develop their learning. "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" (Lee, 2000). Many teachers agree that using technology in teaching is to some extent time-saving.

This decade might be the appropriate time for language teachers to think deeply about how to blend computers, which are evolving tremendously, with the teaching process. Not surprisingly some teachers are still struggling with electronic literacy. Warschauer (1996) confirms the widespread of computers nowadays allows language teachers no excuse for abandoning the use of computer applications in language teaching and learning. It is

supposed that computer technology is employed to achieve the educational needs and not the opposite. Warschauer & Healey (1998) mention that the gradual shift from the computer itself, to the natural integration of computers into the language learning process, indicates that computer technology has taken its rightful place as an important element of language learning and teaching.

In the current era a person who is unable to keep up with the continually updated technology might be regarded as technologically illiterate. “The growing availability of Internet access has prompted CALL instructors to move away from stand-alone workstations and more toward networked computers” (Warschauer & Kern, 2000). This suggests that some teachers who use computers to do relatively simple tasks such as; sending an email or typing a document might experience some hitches when attempting to integrate the technology into classroom lessons. Ahmad et al, (1985) confirms that the real challenge facing language instructors is to use some of their computer-using experiences into language learning experiences.

The learning process primarily consists of three integrated elements; the teacher, the learner and the textbook. In CALL, the computer might be considered to be taking on the teacher’s role. Although the elements of these roles are different, together they contribute to more successful learning outcomes. The computer is a tool which has no mind at all. It is a machine which can be used as an aid to students’ learning. It has no feelings either: “In psychology and education, learning is commonly defined as a process that brings together cognitive, emotional, and environmental influences and experiences for acquiring, enhancing, or making changes in one's knowledge, skills, values, and world views” (Wikipedia official website). This suggests that a computer cannot and should not take over the teacher’s role. It may only assist the teacher and facilitate the learning process. It is wrong to put new technology on a pedestal and consider that it can stand alone without the aid of a teacher. Bax (2003) describes this as a key fallacy in users’ understanding of computers in language education. This idea is sometimes misunderstood even by specialists in the field of education: “The computer is a servant. Its role in education is that of a medium. Far from threatening the teacher’s position, it is totally

dependent on the teacher in many ways: for example, it is unable to create educational materials without a human to direct it" (Ahmad et al, 1985). What makes a computer significantly different from a teacher is that it provides individualized instruction and encourages learners to improve their language by exposing them to the great amount of interaction they will engage in when using newly invented tools.

Sharma & Barrett (2007) state that teachers have to choose the appropriate technology to support the educational setting in which they find themselves, and not the opposite. A computer might be used for different tasks such as typing exams, presenting lessons, playing educational games and so on. Ahmad et al, (1985) state the computer might be used as the mainstay of a course, and used for a number of tasks including; backup, revision, reinforcement, extension, or a variety of other purposes. Test organizations such as Educational Testing Service (ETS), which administers some accredited official tests like TOEFL offers online formats for its tests. It used to use Computer-Based Test format but now, it uses the most recent version which is the Internet- Based Test. It is clear that computers are appropriately used as a medium in both tests.

In the multimedia age, language learning has proved to be easier than it was using exclusively traditional methods; partly because of the technical features associated with multimedia, such as video, images and realia. Bush & Crotty (1991) confirm that video-based exercises help learners to comprehend context more than text-based ones. The control options built into the interactive lesson allow students a number of problem-solving strategies. Beatty (2003) adds that they can present real world educational situations as realistically as television but with greater interaction. Chapelle (2003) confirms that interaction between the learner and the computer or between the learner and another person is beneficial and fruitful.

Using CALL does have certain disadvantages. Some of these obstacles relate to the teachers, learners or computers. The most significant one is the cost of materials as most of the educational programmes available are not cheap. Teachers and students can both

find that the cost of some programmes is prohibitive. Technical problems can be considered as another major obstacle; therefore, there has to be scheduled maintenance which usually has to be carried out by specially trained staff. Richmond (1999) states the complexity and costs of software and some technical problems have pushed teachers and students away from more integrated uses of computers in language teaching and learning. Moreover, Lee (2000) adds that financial support, computer software and hardware availability, technical or theoretical knowledge and the acceptance of new technology might be considered the main barriers. Another significant problem, identified by the researcher, is the lack of teacher training in designing and creating simple language lessons, which in fact as Warschauer (1996) confirms, provides opportunities for commercial developers who often fail to base their programmes on educational principles. However on the whole, for students, it seems that the advantages of using CALL in teaching and language learning win out.

To sum up the importance of infusing technology into the language teaching and learning, Warschauer & Healey (1998) conclude by stating that "technological and pedagogical developments now allow us to better integrate computer technology into the language learning process. Multimedia programs incorporating speech-recognition software can immerse students into rich environments for language practice. Concordancing software and large language corpora provide students the means to investigate language use in authentic context. And the Internet allows for a myriad of opportunities to communicate in the target language, access textual and multimedia information, and publish for a global audience".

1.4 The Internet and Language Teaching

Eastment (1999) defines the Internet as "the global network of computer networks which allows computers to share information, text and graphics and to be accessed from any part of the world". Lee (2000) describes the WWW as "a virtual library of information that can

be accessed by any user around the clock". It initially became useful during the Integrative CALL phase, alongside multimedia technology. While the microcomputer was a great help to teachers in the 1980s, the Internet might be considered to have been the biggest growing asset for both teachers and learners in the 1990s.

With the advent of the Internet, the educational sector has been greatly affected by some technological tools that run on the Internet environment. Singhal (1997) confirms that the influence of such powerful tools has pervaded all aspects of the educational, business and economic sectors of the world. Furthermore, it seems the Internet has improved some pedagogical methods to allow them to be used in a more effective way. Beatty (2003) confirms that the advances in web technologies are presenting teachers and learners with simple tools to adapt to a new generation of learning experiences. Multimedia technology, along with the Internet, has encouraged language teachers to infuse their classes with some online technological aids. Warschauer & Healey (1998) confirm that there is a big issue confronting many language teachers around the world with the advent of the Internet. Using the Internet in language teaching and learning encourages learners to develop their thinking skills. They might be asked to use search engines, Google for example, to search and evaluate a specific piece of information. At the same time, they might also be improving their reading skills. The nature of the net, which supports and facilitates communication using authentic language, is another advantage. This in fact closely aligns with current theories of learning.

Having said language and culture are inextricable and interdependent. Learners can browse the websites at their fingertips to discover different cultures. This confirms what Singhal (1997) and others assume, that understanding the culture of the target language enhances the learning of that language. This goes hand in hand with current sociocultural theories of learning. Hawisher & Self (2000) also confirm that the Internet is unique amongst the tools for mass media and communication for cross-cultural opportunities it provides.

It is true that many universities around the world use online learning as one of their teaching modes. This is sometimes known as distance learning. There are a lot of

educational websites on the net. Not all of them contain authentic and reliable materials. Students are mostly unaware of the array of good educational materials available, or the websites that can be helpfully browsed through. It is apparent that teachers should guide students and help them to collect some useful materials for self study. Gruba (2004) confirms that students doing research on the Internet need to hone their critical skills to evaluate the validity and appropriate interpretation of online source materials. Warschauer & Kern (2000) also urges students of all ages to learn how to find, share and interpret on-line information as part of a necessary move from 'just in case' to 'just in time learning'.

Due to the fact that no single person owns the Internet, there is a freedom to publish materials, create websites and exchange emails with others. As a result, every participant contributes to the large amount of information available on the net. Singhal (1997) describes this process as "each individual system brings something different to the whole", which results in a vast accumulation of information. Email correspondence; one of the most extensively used Internet applications, might be regarded as an extremely effective way to establish teacher-student interaction. The simplicity to set up and use a free account has aided its spread. Now, it is considered as the formal method of correspondence in many universities; The University of Edinburgh for instance communicating all over the world. Singhal (1997) confirms that e-mail correspondence can encourage students to use computers in realistic, authentic situations to develop their communicative and thinking skills. Online discussion results in less stress than face-to-face discussion, which makes students feel comfortable about practising their language in an effective and productive way. Warschauer & Healey (1998) state that numerous studies conclude that computer-assisted discussion fosters participation among participants with far less domination either by the teacher or by particularly vocal students.

To sum up, numerous ways of utilizing the Internet in language teaching and learning have been suggested by Boswood (1997), who devoted half of his book to this topic, as an indication of the extreme importance of incorporating the Internet in the learning process.

1.5 Conclusion

Jensen (1993) states that monumental technological shift has resulted in an enormous change in the methods of teaching and learning. Therefore, integrating computers and their application in the educational process leads to a large demand. Institutional bodies, whether government or private sector, should support educational technology. What is more important is that teachers should try to recognize the fundamental value of combining both education and technology. Teachers who were taught with technological aids themselves might find using CALL for their teaching easy and effective. They can then “improve the learning capacity of those who are being taught a language through computerized means” (Cameron, 1999). Teachers must know that their own role in the learning process will not be superseded by computers. Modern technology is to be used as an aid only. The students’ needs have to be met and the design of educational programmes has to be both enjoyable and lead to results.

Chapter Two: CMC Tools and Collaborative Autonomous Learning

2.1 Introduction

Computer-Mediated Communication (CMC) tools have been used extensively. This has been facilitated by the advent of user-friendly applications, which provide some compatible versions with different mobile phones, and the availability of Internet access whilst using mobile phones or portable computers. This enables people to have computer access to the Internet and connection to others regardless of location. Technological innovations have faced a period of continuous change. Beatty (2003) confirms that there are still undiscovered areas within new technologies which require further investigation.

Depending on the field in which the CMC tools are to be utilised, different definitions describe the nature of the function. Eastment (1999) defines CMC as "the use of computers for communication between individuals or groups, often in a training or learning context". Beatty (2003) defines CMC as "a situation in which computer-based discussion may take place without necessarily involving learning. However, opportunities for learning are inherently present, especially in situations in which learners need to engage in negotiation of meaning with native speakers of the target language or even with peers of non-native proficiency". Sharma and Barrett (2007) refer to CMC as those "situations as diverse as communicating through the keyboard with pen pals overseas, sending an email across the world, or making a telephone call across the Internet, using a system such as Skype". With the exponential growth of the Internet, CMC has been utilising different forms such as: audio and video, text chat applications, 'Multi Object Orientation' (MOO's), e-mail, discussion forums, audio and video conferencing. Although each tool has its own properties and functions, some tools can be used and implemented together. These tools are known as 'social networking applications' due to their abilities in terms of linking participants to each other. CMC tools are generally divided into two major categories: synchronous and asynchronous.

In this decade modes of communication have been affected by the use of synchronous and asynchronous tools. 'Facebook', for example, has expanded dramatically in just a few

years. In a report carried out by Smith (2010), it was estimated to have more than 500 million subscribers globally with numbers continuing to increase. In the UK there are 26 million users, which represents one third of the population and over 30 billion written pieces of content are exchanged every month between users. Mark Zuckerburg, who created Facebook in 2004, confirms "it is an exciting milestone for the Facebook community. Half-a-billion is a nice number but the number is not what really matters here, what matters are all of the stories we hear about the impact your connections have had on your lives". It is worth investing in this tool along with others such as, 'wikis' and 'blogs' to provide a communicative link between students and enable them to use their time more effectively whilst benefitting their educational needs. Whitworth (2009) stated that implementation of 'web 2.0' tools have provided a valuable opportunity to learners, enabling them to participate and collaborate in producing informational resources.

Bax (2003) claimed that the real integration of 'CALL' in language teaching and learning should be given priority. It would appear that this claim has been rejected by the coming of CMC tools, which indicates considerable integrated work. The following section will describe and detail famous synchronous and asynchronous tools and their use in the learning process. The central focus is on investigating the use of 'wikis' and 'blogs', two of the best-known examples within collaborative autonomous learning.

2.2 Synchronous and Asynchronous Tools

CMC tools can be divided into two main branches; synchronous and asynchronous. Whilst the former involves communication in 'real time', the latter indicates 'elapsed time' for reflection. Ashley (2003) described synchronous tools as those which "enable real-time communication and collaboration in a same time-different place mode. These tools allow people to connect at a single point in time, at the same time". Asynchronous tools "enable communication and collaboration over a period of time through a 'different time-different place' mode. These tools allow people to connect together at each person's own convenience and own schedule."

With the accelerated development of ‘online’ technology, the web can be divided into two main types; first and second generation. Both generations involve both synchronous and asynchronous tools. For the first generation, ‘emails’ and ‘discussion forum’ asynchronous tools, are well-known examples. Whilst ‘emails’ are considered personal, discussion forums allow more people to take part in ‘threaded’ topics.

Godwin-Jones (2003) confirmed that discussion forums encouraged participation when compared with ‘face-to-face’ dialogue. Chat rooms such as ‘MSN messenger’ and ‘Paltalk’ are good examples of the first generation of synchronous tools. What makes instant messages in chat rooms distinctive is their ability to utilise voice and video features for communication. Godwin-Jones (2003) stated that since 2005 the web technology has been updated to include ‘web 2.0’, created by Tim O’Reilly, as second generation, which introduced social networking applications such as: ‘blogs’, ‘wikis’, ‘podcasts’, ‘Facebook’ and ‘Twitter’. Dudeney & Hockly (2007) confirmed that these tools were used to connect people in a collaborative ‘online’ communication. Whilst those tools were developed at different times, according to the needs of users, ‘web 2.0’ makes it easier to link all such tools in a single application such as a ‘Virtual Learning Environment’ (VLE). Sharma & Barrett (2007) stated that a VLE unites all tools, both synchronous and asynchronous, in a single system. Klobas (2006) confirmed that social links, created among people who have the same interests, in certain topics, are a characteristic of ‘web 2.0’ technology.

The advent of some social collaborative applications such as ‘wikis’ are completely aligned with the vision of Tim Berners-Lee (1999), as cited by Klobas (2006), who expressed his view on the net stating that, “people can communicate ... by sharing their knowledge in a pool ... putting their ideas in, as well as taking them out”. Perez (2003) stated that such synchronous and asynchronous technological tools greatly impact all the sectors of society in general and the field of education in particular.

2.3 Wikis.

A ‘wiki’ is deemed to be one of the most widespread social collaborative networking tools. Klobas (2006) defined a ‘wiki’ as “a collaboratively authored knowledge resource that is accessed and edited from a web browser using wiki software”. Dudeney & Hockly (2007) described a ‘wiki’ as “a collaborative web space, consisting of a number of pages that can be edited by any user”. Whereas Erben et al. (2009) stated that a ‘wiki’ was “a collaborative website that many people can work on or edit”. It would seem that these definitions describe this tool as an open source productive platform for social contribution. ‘Wiki’ is originally a Hawaiian word, meaning ‘quick’, chosen to indicate the quick process of editing. The word ‘wiki’ indicates two things; the wiki site and wiki software used to create it. Klobas (2006) stated that “wiki sites are collections of interlinked documents and files accessible and editable, by web browser” and “wikis are collaborative authoring tools that are accessed through a web browser” respectively.

The first ‘wiki’, ‘Portland Pattern Repository’ or ‘WikiWikiWeb’, can be dated back to 1995 when it was created by Ward Cunningham. Klobas (2006) stated that it was invented for communication within the small software developers’ community. Up until the end of the last century, wikis were the aim of small computing groups. In 2000, there was a noticeable development in ‘wikis’ to cover collaborative multimedia communities. Klobas (2006) mentioned the first ‘wiki’ dealing with multimedia issues such as ‘Meatball Wiki’ created by Sunir Shah. ‘Wikis’ have been described by the creator, Ward Cunningham, as “the simplest online database that could possibly work” (Leuf & Cunningham, 2001). The nature of a ‘wiki’ environment helps the participants to collaborate when they edit, change or add a new piece of information. As Godwin-Jones (2003) stated, “Wikis are intensely collaborative”. The salient feature of a ‘wiki’ is that it allows collaboration between many.

The philosophy of ‘wikis’ is based on the principles of ‘soft security’ rather than ‘hard security’. These principles are summarised by Klobas (2006) in that the good faith of the participant is always assured; review of texts are monitored; there is a principle of ‘forgive and forget’ when mistakes are made; damage is limited and there is an overall fair process, all of which gives everyone a chance to express their views openly. Whilst the default

setting of a ‘wiki’ is open for the public to read and edit such as the well known site ‘Wikipedia’, it can also be set privately for a small group of collaborative participants such as in ‘classroom wikis’. ‘Wikis’ prove that all participants, within a given topic area, contribute towards the final result of the content due to the continuous change that can place. This is the basic notion of ‘Wikipedia’. The ‘Wikipedia’ creator Jimmy Wales, cited by Richardson (2009), confirmed this concept by stating “imagine a world in which every single person on the planet is given free access to the sum of all human knowledge. That’s what we’re doing”.

According to Richardson (2009), ‘Wikipedia’ proves that the concept of everyone working together can be better than working alone. This may be useful in educational settings in order to enable learners to criticise, evaluate and express their own opinions. Therefore, learners promote their collaborative communication and encourage autonomous learning. Owing to the nature of a ‘wiki’ environment, it may have a greater impact on education in general and collaborative autonomous learning in particular. A more detailed presentation of the role of wikis and blogs in collaborative and autonomous learning will be discussed below.

2.3.1 Wikis and Collaborative Autonomous Learning.

With the advent of the Internet there has been greater opportunity to use ‘online’ tools such as; ‘wikis’ which encourage socio-collaborative activities in forming different communities and as a result can be advantageous. Collaboration and cooperation are important aspects within education in order to foster assistance between learners and make progress in the learning process. A ‘wiki’ enables students to form their own social community of practice as they collaborate towards class content. According to Beatty (2003), collaboration is “a process in which two or more learners need to work together to achieve a common goal, usually the completion of a task or the answering of a question”. There is sometimes confusion between collaboration and cooperation. Whilst the former supports learners working together to achieve a shared goal; the latter encourages learners to work together to achieve different goals. It might be said that collaboration is more than

working together and therefore may be considered a good model for social interaction. Although there is no clear image on the difference between collaborative and cooperative tasks, Dillenbourgh et al, (1995) described this difference, which aligned with the nature of a 'wiki' environment, according to the division of a task by stating; "in cooperation the task is split (hierarchically) into independent subtasks; in collaboration cognitive processes may be (heterarchically) divided into intertwined layers". There are some factors which stimulate the collaborative process. Arnold & Ducate (2006) observed that the context, tools and participation within a learning environment helped to mediate collaborative learning.

The interaction between learners has changed over time as a result of a learner-computer to learner-learner via computers due to numerous 'online' applications which motivate their participation. The nature of 'online' information and accountability helps learners to work collaboratively and enable sharing of thoughts and knowledge to achieve a final goal. Learners can also help each other through 'online' dialogues by sending and receiving 'hints'. "Through collaborative dialogue, learners mutually scaffold each other to find how best to express their intended meaning, by giving and receiving assistance as they interact with each other. In working towards the common task goal, learners become contributing members by pooling their knowledge and resources for joint decision making and problem solving". (Zeng & Takatsuka, 2009). Ideas suggested by Vygotsky (1978) relating to the 'Zone of Proximal Development' (ZPD) can be applied within a 'wiki' when learners collaboratively negotiate the meaning and solve problems together.

'Autonomy' and 'Self-directed learning' (SDL) have been an area of special interest to many teachers within the discipline of 'EFL'. In recent years there have been many conferences regarding the concept of 'autonomy' within the learning process "Conferences have been held in Europe, Asia, Australia and Latin America and the 'AILA 2005 World Congress' included no less than 36 contributions from 18 countries under the heading of 'autonomy" (Benson, 2006). Based on Littlewood's framework (1996), autonomy is divided into two parts: ability, which comprises knowledge and skills, and willingness which is subdivided into motivation and confidence. "Autonomy as a learner

includes (a) the ability to engage in independent work e.g. self-directed learning; and (b) the ability to use appropriate learning strategies, both inside and outside the classroom". Merriam (2001) assumed that SDL was an important aspect of adult education and that it led to successful learning. Participating in a 'wiki' through collaborative writing can therefore foster student autonomy. Erben et al (2009) confirmed that students have full control over the pages written in a 'wiki', which as a result can encourage their self-centred teaching. However, Raby (2007) assumed that guided autonomy encouraged learners to work collaboratively.

CMC technology has further helped learners to gain knowledge independently through activities such as: reading on the net; watching 'online' TV and listening to 'online' radio to improve their 'L2' skills. Technology-based learning environments such as 'wikis' also educate learners on how to achieve autonomy. Kessler (2009) summarised what Benson (1997, 2001) recognised as the enormous potential for the development of autonomy through the use of technology; as well as the reliance upon autonomy in order to effectively utilise the potential of technology-based learning environments. In order to promote learners' autonomy using CMC environments, there are some points to be taken into consideration. Firstly, teachers should allow students to post new topics to be discussed by the whole group within a specified time-limit in order to foster learners' autonomy. Instructors should also set up certain expectations, as well as allow students to set up their own learning goals. "It is important that the instructors teach students how to become responsible and accountable individual learners" (Lee, 2009). It is assumed that self-directed learning facilitates the learning process. Song & Hill (2007) mentioned that research on 'online' learning indicated that SDL skills might assist in learning process.

According to Candy (1991) technology fosters the learner to achieve a high level of self-direction, particularly in areas which are familiar to learners, or those that are linked to their previous experience. Several recent contributions have emphasised opportunities for learner autonomy within 'CALL' and the importance of attention to autonomy in the development and use of 'CALL' technologies (Corder & Waller, 2006). It would seem therefore that autonomy and collaboration do not easily co-exist. Technology has

facilitated this difficulty and proved that learners may work collaboratively to achieve a shared task using new ‘CMC’ asynchronous environments such as a ‘wiki’.

According to Torres and Vinagre (2007), the learning process that supports collaborative language learning can be traced back to ‘Vygotsky’s Sociocultural Theory’ which suggested that learning processes are a social rather than a mental structure of the individual, and therefore such a process encourages the collaborative participation between learners. “In SCT, learning is a process that entails not only internalisation of the knowledge of the learning task, but also transforming and using the internalised knowledge for other purposes in the process of the learner’s social and cognitive development” (Long, 2010). In fact, ‘CMC’ has been a major motivating tool for enhancing learners’ collaborative skills. Moreover, technology is totally related to teaching and learning under the umbrella of sociocultural theory. “In the literature, an increasing emphasis has been placed on linking ‘online’ communication technology with the sociocultural context of learning” (Crook, 1994).

The Sociocultural approach has indicated that ‘online’ communication depends heavily on collaborative learning. ‘CMC’ tools have therefore impacted on collaborative learning and have assisted in the creation of collective learning environments. There are, for example, significant features of a synchronous text-base, a major type of CMC, and tools such as ‘educational chat rooms’. Firstly, there is no limitation on time and space which in turn allows students to communicate freely, at any time provided they have access to the internet. Secondly, swift feedback between users may foster motivation. Whilst thirdly, a combination of both text and speech in most ‘CMC’ tools is advantageous. Features suggested by Kern (1995) such as equal participation, reduced anxiety, creative expression and improved quality of output may encourage the success of collaborative working in the development of linguistic skills.

2.3.2 Pros and Cons of Wikis.

There are many advantages associated with ‘wikis’. Klobas (2006) stated that through their use content can be easily accessed online; pages can be collaboratively edited; links can be added; pages can be updated quickly; history of changes can be saved automatically; recent changes can be viewed and participants notified of changes via email; search facility are enabled and overall the whole structure is less sophisticated when compared with web pages. The simple process of editing on a ‘wiki’ page is much easier than that involved on a web page. Klobas (2006) summarised the two processes which highlighted the fact that ‘wiki’ page editing involved half the process of ‘web page’ editing. Whilst ‘web page’ editing is a long and complicated process, which can only be achieved by an expert in programming languages; ‘wiki’ page editing is simple and can be done by any user. The process may involve four simple stages for example: opening the page; clicking the button “Edit”; making the changes and saving. This is the basis for the term, ‘wiki’ meaning ‘quick’.

Every single action is automatically saved and the archive can be checked at any-time enabling a complete history of student participation to be held. Although the default setting of a ‘wiki’ can be opened for any user who wishes to contribute to the content; a ‘wiki’ page can be encrypted and limited to a small number of participants. This makes a ‘classroom wiki’ more private and secure. The ‘discussion’ tab is considered to be a good motivator for students in improving their negotiating skills. Richardson (2009) confirmed that such a ‘give-and-take’ feature served students well for the future. It is possible to attach pictures, graphics and some animated figures to a ‘wiki’ which might attract students and provide further information. “This is clearly appealing to the digital generation, who are not used to seeing only words on a page” (Erben et al., 2009).

However, ‘wikis’ have been criticised for the nature of their continuous editing ability. This means that the content is unstructured when compared with other ‘online’ environments such as ‘discussion forums’. Klobas (2006) confirmed that the process of adding links and pages to a ‘wiki’ indicated no pre-defined structure. Another significant drawback relates to intellectual property or copyright issues within publishing material on

‘wikis’. Klobas (2006) stated that all ‘wikis’ have to declare the copyright to be owned by the collective and assign rights to re-use under the ‘Creative Commons Licence’.

It seems therefore that the use of ‘wikis’ within education has many advantages. According to Klobas (2006) there are many beneficial aspects associated with their use which include: the ability to construct socially collaborative knowledge by any group of people; spread information to the wider public; find solutions for any specific problem and more importantly use as “a tool for continuous learning and autonomy among members of the intelligence community”. Farabaugh (2007) confirmed the collaborative role of ‘wikis’ for students by stating, “contrary to the offerings of many current educational software programs, such as the commercial products ‘Blackboard’ and ‘WebCT’ in the United States, ‘wikis’ provide minimal structure; they offer students the opportunity to create a series of web pages; to revise their own work and the work of others; to comment; to reconnect different pages and to delete pages”.

The word ‘wiki’, is often associated with the website ‘Wikipedia’. It is a fact that many collaborative developments resulted in the creation of this organic ‘online’ encyclopaedia. Whilst ‘Wikipedia’ is known as the modern encyclopaedia and is used as the most extensive reference tool, the accuracy of information and authority of the writers has been questioned. Klobas (2006) stated that no one could guarantee the expertise and perspectives of the writers. However overall critical evaluation of the information presented via Wikipedia may offer benefits to the wider student population. Godwin-Jones (2003) confirmed that the contents of ‘wikis’ are expected to include a degree of seriousness. The numbers of people who add correct information to such a medium would appear to be greater than those who do not, which overall makes it a valuable resource. ‘Wikis’ can therefore be considered to be more than simply a social tool. Klobas (2006) stated that ‘wikis’ combine technology, space, an information resource, philosophy and sense of community.

2.3.3 Blogs and Wikis.

There has been exponential growth of ‘wikis’ and ‘blogs’ within the educational setting and this has become increasingly evident in the last few years. This section describes a blog and outlines the similarities and differences between a blog and a wiki and their various uses in educational settings. ‘Blogs’ and ‘wikis’, when utilised as social and informative tools, are considered useful in forming communities of people with shared interests. Dudeney & Hockly (2007) defined a blog as, “a web page with regular diary or journal entries”. According to Erben et al. (2009), “blogs are web logs or journals, posted to a website where they can be seen by anyone”. Myers (2010) stated that the term ‘blog’ originated from the two words, ‘weblog’ and ‘we blog’ invented in 1998 by both Jorn Barger and Peter Merholz, respectively. ‘Blogs’ are therefore known as ‘online diaries’ which contain a posted topic and are followed by comments. The feature of leaving comments on posts in a blog provides a way of linking people who have the same interests. Dudeney & Hockly (2007) confirmed that people might be able to create an ‘online community’ around a common topic or interest through the use of a ‘blog’.

Using programming language such as ‘Hyper Text Mark-up Language’ (HTML), to create standard web pages has proven difficult. Myers (2010) stated that ‘blog’ creation has been simplified by utilising tools invented by ‘Pitas’ and ‘Pyra’ in 1999. As a result, the use of ‘blogs’ reached a peak between 2001 and 2005 when the two companies were sold to ‘Google’ which now provides the largest base for ‘blogs’. Due to the simplicity of setting up a ‘blog’, there are many examples designed for different purposes and interests. Richardson (2009) stated; “there are blogs about dogs and frogs, even people who wear clogs. There are flying blogs and frying blogs, crying blogs, and dying blogs. There are blogs for every age (my eight-year-old son Tucker blogs), every occupation, every nationality, every … well … blogs are hot”. Myers (2010) described how a person is able to comment on a ‘blog’ by typing in a box and then clicking the button ‘publish’. Contributors therefore do not require an understanding of HTML coding language.

There are some common terms associated with the word ‘blog’ which indicate the general topic such as ‘edublogs’. Dudeney & Hockly (2007) described ‘edublogs’ as the web

pages which cover topics of education ranging from educational policy to learner compositions. An ‘edublog’ can be divided into three types: ‘tutor blog’, ‘student blog’ and ‘class blog’. Although they are set up and controlled by different people, all of them contribute to the learning process through collaborative tasks. Dudeney & Hockly (2007) suggested some uses for all three blogs. A ‘tutor blog’, for example, might be used to set homework, give further explanation of a topic, and provide exam tips. A ‘student blog’ could be set up for providing personal information, extra writing practice and further research. A ‘class blog’ is useful for a class project in which all students are allowed to participate. Richardson (2009) provided a long list of activities to achieve the different educational goals that might be posted in a ‘classroom blog’.

Although research is limited regarding the impact of ‘blogs’ on language teaching and learning, the use of ‘blogs’ in education has increased in the last few years. Yang (2009) mentioned some advantages of incorporating ‘blogs’ into the learning process such as: stimulating reading; building communities; including links for further reading and improving self-study. A study conducted on 43 ‘EFL’ student teachers, in two teacher training programmes in Taiwan, highlighted the fact that “the blog was considered a great tool for these student teachers to record their growth and changes as well as build a learning community”.

Utilising a blog in the learning process can therefore be seen as an aid for students. Richardson (2009) stated that the research conducted by specialists in education, Fernette and Brock, revealed that ‘blogs’ promoted critical, analytical, analogical, creative and associational thinking. Presenting comments in a ‘blog’ may be useful for learners to improve both written and spoken English as students can utilize their mobile phones. Erben et al. (2009) confirmed that a comment can also be posted as an MP3 audio file. A ‘class blog’ can be beneficial to students who find it difficult to engage in a ‘face-to-face’ environment, helping them express their opinions more openly. Furthermore, discussing a specific topic in a ‘blog’ can enable participants to read further and gain a deeper level of understanding of a topic area. Learning can be considered more flexible as it is no longer limited to daily class hours and the confines of a school environment. Students can

participate in a task, do homework, exchange ideas and keep in contact with each other around the clock. Communication by all parties can be saved in a complete record within the ‘class blog’ which offers easy access to both teachers and students. Richardson (2009) confirmed that “weblog are a constructivist tool for learning … the ability to keep histories of work in an organised, searchable, easily searchable space is an important development”.

Blogs and wikis are similar in that they can be easily used and require no programming expertise. Students need as much experience as they do ability to use word processors. Godwin-Jones (2003) confirmed that ‘blogs’ use a modified WYSIWYG environment and ‘wikis’ use a simple set of commands. ‘Blogs’ and ‘wikis’ are therefore similar in their use and require no programming expertise. They encourage learners not only to write collaboratively but also to contribute to knowledge. Therefore, learners form their own community of practice. Yang (2009) confirmed that a successful community of practice involves a highly regarded contribution among its members.

There are however a number of differences between ‘blogs’ and ‘wikis’. Whereas, ‘blogs’ support a ‘one-to-many’ communication technique; wikis provide a ‘many-to-many’ communication technique. A ‘blog’ is created by one person having the control over the content and participants only have the ability to comment. In a ‘wiki’ however, everyone can edit, add or delete what is written on a page. Furthermore, the comments in a ‘blog’ are sequenced in reverse chronological order; whilst a ‘wiki’ is updated and changed whenever a text has been edited. Klobas (2006) stated that; “wikis are thought of as tools for multiple authors rather than a single author . . . wikis are structured by content rather than time”. Myers (2010) also stated that ‘blogs’ are personal, but wikis are not. ‘Blogs’ are also more restricted than ‘wikis’ because of the central administration involved and the structure of wikis is not as linear owing to the continuous changes.

On balance, ‘blogs’ and ‘wikis’ may be effectively used in both language teaching and learning. Both media foster writing skill, through comments and edits, and enable learners to negotiate meaning, critically read and present personal perspectives. Ward Cunningham, the first ‘wiki’ inventor, as cited by Warschauer (2010) stated that “the

blogosphere is a community that might produce a work, whereas a wiki is a work that might produce a community".

2.4 Conclusion.

New CMC 'social networking' tools have emerged in last few years which may threaten the use of 'blogs' in the future. Myers (2010) stated that "blogs are being replaced by MySpace, Facebook, Twitter, Flickr". Needless to say all these tools encourage collaborative communication. Collaboration in a class is one of the important aspects which have a remarkable impact on the learning process. Beatty (2003) stated that collaboration may foster negotiation of meaning; the promotion of learning awareness; achieving educational objectives; improving literacy and encouraging language acquisition. All of these advantages may be achieved by creating some social tools such as 'wikis' and 'blogs'. Derycke et al. (1995) stated that "some of the highest pedagogical objectives can only be achieved by employing group learning activities such as group problem-solving, games, case studies and exchanges with real experts. In all of these activities and skills, language is explored, exercised and developed in ways supported by collaboration at the computer".

In summary CMC tools are considered more than just collaborative social applications. They can also be used in many different ways to promote the learning process. Beatty (2003) confirmed that computer technologies offer great opportunity to find innovative methods in teaching and learning languages.

Chapter Three: CMC Tools and Language Teaching and Learning

3.1 Introduction

Modern technology covers a wide range of recent innovations including; computers, the Internet, smart boards, virtual learning environments and a variety of social networking tools. The education sector, as mentioned above, has been greatly affected by the advent of modern technology in general and CMC tools in particular. Richardson (2009) states that "one trend that shows no sign of stopping is the movement of curriculum to a digital, online environment". For a number of years, research has been conducted to examine the effectiveness of CMC tools in language teaching and learning when such tools are blended with the learning process.

According to Sharma and Barrett (2007), blended learning refers to a language course which combines a face-to-face classroom component with an appropriate use of technology. Studies show a remarkable increase in students' participation when teaching and learning are blended with some CMC tools, as compared to a traditional face to face environment. "Researchers who have compared small group interactions in oral and network-based modes have shown increased participation in electronic classroom discussions (Sullivan & Pratt, 1996; Warschauer, 1996). Blending such tools into the teaching approach is considered motivational and has been shown to assist in the learning process.

As a large number of students today are well acquainted with those technological tools which help them to be digitally competent, they find blended learning more enjoyable than a merely face-to-face traditional method. Dudeney & Hockly (2007) confirm that the term 'digital native' has been coined to describe a person who grows up using technology and who feels comfortable and confident with it. Teachers might find computers in teaching more effective as part of the learning process. Walker (1994) describes teacher's attitudes to the introduction of CALL in Saudi Arabia to be positive. This leads to the possibility of blending new CMC tools into language teaching and learning.

CMC tools might be used in class to encourage students to collaborate socially with each other to achieve certain educational goals. Jacobs (1998) summarises some advantages of group activities in language teaching and learning by stating that students might experience reduced anxiety and increased motivation, enjoyment and independence thus learning can be increased. Furthermore, WWW technology might be considered as the most effective CMC tool used in language teaching and learning. Warschauer & Healey (1998) states that it might be employed to achieve various pedagogical goals such as; providing linguistic exercises, accessing authentic reading materials, stimulating communicative exercises and even publishing students' comments and work. As many CMC tools are set up in the English language arena, students will definitely improve their language when they participate and interact with one another. Chapelle & Jamieson (2008) confirm the benefits bestowed by "communication tools such as e-mail, instant messaging and blogs expand learners' opportunities to communicate in English".

CMC tools have prompted learners to exchange their ideas and thoughts, by posting in forums and editing texts in wikis; for example, between minds rather than within minds, thus shaping how language might be used to combine thoughts. According to Kern and Warschauer (2000), CMC "shifts the dynamic from learners' interaction *with* computers to interaction with other humans *via* the computer". Lund (2008) observed that this idea aligns with the concept of sociogenesis, which is at the heart of the sociocultural perspective. Song & Hill (2007) suggested that online learning also helps learners gain knowledge from different resources. Moreover, there are some learning concepts that are applied when utilising CMC tools in the teaching and learning process. Klobas (2006) states that a wiki environment, for instance, indicates the concept of 'collective wisdom' by Surowiecki and 'connectivism' by Siemens as two great aids for language learners. One of the major contribution of wikis in the classroom is that "students are not only learning how to publish content; they are also learning how to develop and use all sorts of collaborative skills, negotiating with others to agree on correctness, meaning, relevance and more" (Richardson, 2009).

Yang & Chen (2007) confirmed that language and culture have strong ties and the effort involved in trying to learn the culture of the target language helps learners improve their language learning. As a result, collaborative learning has to be motivated via the social interaction between learners and that is what computer mediated communication tools facilitate. Some studies have investigated the usefulness of integrating computer mediated communication into language teaching and learning via different environments, email, networking and video conferencing, to name but a few. Not only do CMC tools encourage learners, but they also bridge the gap between cultural and social differences in a multi-national course, as observed by Dooly (2007).

This chapter shows the impact of infusing CMC tools in language teaching and learning on both teachers and learners. Language teachers' roles change depending on the CMC environments and the learning process might be learner-centred rather than teacher-centred. The research method used and data collected will be analysed and discussed subsequently.

3.2 Language Teaching and Learning Using CMC Tools

There has been a strong tendency to implement technology in language teaching and learning since the birth of CALL in the 1980s. CMC tools have facilitated language teaching and learning promoting a more communicative process, which had been difficult to achieve in the early period of CALL. Bax (2003) states; "owing to technological limitations related to hardware and software it was not possible to use computers for realistic communication in a CLT vein until the advent of effective CMC". Not only has the coming of CMC technology facilitated incorporating the tools into the learning process but it has also affected the attitudes of people, i.e. teachers and students, who readily accept these technologies as normal. This in fact agrees with the argument that for the sake of the full integration of technology into the learning process, technology has to be normalised in our daily life. Bax (2003) describes normalisation of technology as the stage when technology is invisible and becomes a part of life, which is what most people really

feel towards technology today. Bax (2003) also confirms that teachers and students will use the tools without fear or exaggerated respect for their function.

Furthermore, some obstacles for EFL learners, such as limited opportunities to practice English outside the classroom and time limits in actual face to face classrooms, allow decision-makers to integrate CMC tools into teaching settings. “CMC is becoming an easily accessible learning environment, which is especially significant for learners in the EFL context, where learners have few opportunities to use the target language outside the class. Through the integration of CMC into course syllabi, EFL teachers can create a supportive learning environment, in which learners interact with each other for meaningful purposes beyond the confines of the classroom walls” (Zeng & Takatsuka, 2009).

Social tools involving audio and video features along with the input and output facility, it seems that the four integrated language skills (listening, speaking, reading and writing) are improved and students have a good opportunity to practise their language. Dudeney & Hockly (2007) confirm this notion by suggesting exposing students to a range of ICT tools. To present the method students might use to improve their language skills, the following examples indicate effective use of CMC tools. Chatting applications, Skype for example, help students listen to native speakers and practise speaking, though sometimes informal style is used. What is more, a student might think, organise and choose suitable words and correct expression when using asynchronous tools. Sharma & Barrett (2007) confirm that CMC synchronous tools develop fluency when learners interact in real time and asynchronous tools can help develop their accuracy in elapsed time. Not only do chatting programmes, spoken or written, help students improve their four skills but they also encourage them to get rid of shyness and promote the building of close relationships outside class times.

Reading and writing skills are deemed to be important skills in general and in the academic setting in particular. A number of L2 learners find academic writing difficult. Implementing English classes in a blog, for instance, might foster students’ academic writing and help them to become accustomed to formal writing as they comment and contribute to the content whilst a teacher monitors their participation and comments on

their writing. Bloch (2007), Rezaee & Oladi, (2008) state that using such tools might help students successfully transit from a colloquial writing style to a more academic writing style. Compared to classroom writing activities, CMC tools provide enough time for students to review, revise and double check their writing before publishing any participation. Warschauer (1997) states that, written interaction directs learners' attention towards linguistic features.

Utilising emails as effective CMC tools in the learning process is not only considered as a method of correspondence but also as a helpful tool to improve some skills. E-mail communication might be set and utilised according to pedagogical principles, to achieve its high potential role. Teachers can use emails to individually comment, give feedback and expand further on personal queries. "Emails have been described as 'talky-writing' because they contain elements of both speech and writing" (Sharma & Barrett, 2007). To take an example from my own experience: I taught a translation course for a group of around 60 students and asked them to use email as a tool for submitting assignments. I discovered that only one or two students, who were computer illiterate, demonstrated slight difficulty accessing the Internet. The others were very happy to be given this opportunity and participated effectively. Moreover, I noticed that students who were shy and timid in the traditional class setting found email correspondence to be a good method of keeping in contact with me. A study by Wang (1993), as cited by Warschauer & Healey (1998), compared dialogue journals written by two different groups of ESL students using two tools; traditional tool (paper and pencil) and electronic one. She discovered that the e-mail group communicated and used a variety of language functions more than the other group. Mak et al (2000) confirm that E-mail, computer conferencing and WWW are used to enhance language teaching.

It has been noticed that interaction between students is often promoted when they communicate online with each other. The nature of interaction via computers allows learners to build their linguistic skills as it conveys authentic context. "Electronic interaction seems to provide more natural contexts where students do not feel they are using the language to learn it, but that they are equipped with linguistic skills that enable

them to communicate with people all over the world. The more they interact, the more they learn and more confident they become" (Paiva, 2001). Obvious opportunities such as an authentic context are created for students when learning via technologies. This does in fact make a positive impression which fosters self-learning. "One obvious benefit of technology for language learning is the creation of opportunities for students to use language in authentic contexts. Such activities encourage students to strive for autonomy in the target language" (Kessler, 2009).

To take an example from my own experience: I was a supervisor of a small group of Saudi students who held a regular online conference with other students from Saudi Arabia, the USA, South Korea and Japan. This conference was held on a weekly basis for around one hour and lasted one semester and the topic was chosen by students in advance. They discussed different issues mostly related to the educational arena and their own needs. The aim of this small project was to initiate a relationship between gifted students around the globe. Some well known programmes were used, such as Skype and MSN Messenger. I have noticed that many students, who were shy and timid in class, chatted for longer on the webcam. As a result, I have tried my best to implement computer technology in all my English lessons, particularly Grammar based ones.

Learners who are being taught in CMC environments find computers interesting and useful. Not only do they build up computer literacy skills, but they also learn a lot about the target language. Dooly (2007), in a project conducted to study internet-based learning, received a comment from a student admitting "she enjoyed being able to use her computer as a means of communicating with so many other people and that as she was doing so she realised that she already knew quite a lot about the target language". In a study conducted by Zeng & Takatsuka (2009) of 16 Chinese tertiary-level learners using a CMC tool to investigate the dialogues between participants, a student commented; ". . . I enjoyed the practice very much and have learned a lot from it. I can't express how fulfilled I feel now! After completing the five tasks, I have gained some confidence. Now when I chat with my classmates, I find myself unconsciously speaking English. I feel a little proud of being

able to do that because I feel that I can speak well . . . after this practice, I find that I still have much potential for improvement".

Motivation is deemed to be a significant aspect in language teaching and learning. Technology fosters student's motivation in language learning. Raby (2007) confirms that Information and Communication Technologies (ICT) favours motivation and that this can be taken for granted. Johnson & Johnson (1990) confirm that all three learning objectives, 'individualistic', 'competitive' and 'cooperative', foster motivation in learning. While the first two are not the main focus of CMC tools, the last one was definitely developed using some CMC technologies. Language teachers are supposed to know how students learn in order to choose what augments the learning process.

Brown (2000) confirms an understanding of the way students' learning determines philosophy of education, teaching style, educational methods and classroom techniques. Training teachers on how to use CMC in the learning process is a big demand. Warschauer & Healey (1998) stated that teachers will use multimedia and other resources in the classroom effectively if they are given training sessions. Language teachers also might get useful hints from websites created by teachers for their online classes such as: 'Matt Barton TikiWiki' who uses a wiki for teaching English at St. Cloud State University and 'Lange and Paterson' who used a wiki in their teaching at the University of Edinburgh in 2005.

It is apparent that a number of language teachers lack confidence in incorporating CMC tools into their teaching, though many often use recent technology for their personal use. Dudeney & Hockly (2007) stated that although some CMC tools, such as; wikis, blogs and podcasts are proved to be enhancing the learning process; teachers are sometimes fearful of the technology or feel they are not competent enough. As using CMC tools is not difficult and requires no programming background, teachers are encouraged to learn them and apply them pedagogically. What is more, teachers are advised to introduce students to some tools show them how to use them in the learning process. Chapelle & Jamieson (2008) confirm "introduction of CALL in the classroom will hopefully result in learners being guided toward constructive, individualised, and collaborative CALL activities

outside of the classroom". While introducing new CMC tools to class is important, training students on how to use them seems more important. "Learner training is important for successful use of instructional technology" (Hubbard, 2004).

However, the role of instructors in the online environments should be limited. It should be a role focusing on monitoring or facilitating only, rather than spoon feeding. This, in fact, aligns with the idea that a teacher has to be a 'guide on the side rather than a sage on the stage'. Lee (2002) reported that the role of the expert is to monitor and not to dominate the discussion. Kwok-Chi (2001) states that online communication technology has created a learner-centred environment which in turn promotes collaborative learning. In addition, communication skills are fostered with CMC tools. Lee (2002) completed a pilot study using synchronous electronic chats combined with task-based instruction boost learner's communication skills. He demonstrated that computer-mediated communication uses less structured-controlled but more open-ended exchanges and has significantly impacted the language learning process.

Studies also show that integrating new technological tools in teaching, for example writing skills, not only help students improve their writing but also encourage them to improve their social ties. CMC tools have great impact on language teaching and learning and students are encouraged to get the most from online applications. Warschauer (1996) states that blending CMC in the leaning process allows learners to "communicate directly, inexpensively and conveniently with other learners or speakers of the target language 24 hours a day, from school, work, or home".

3.3 Data Collection and Analysis

One of the best known methods for collecting data in social sciences is the questionnaire. Dornyei (2003) confirms that questionnaires are the most employed data collection devices in statistical research. Questionnaires are described by Brown (2001) as "any written instruments that present respondents with a series of questions or statements to

which they are to react either by writing out their answers or selecting from among existing answers".

With extensive use and great help from computers, an online survey website was used to design my questionnaire for this research. A questionnaire was designed and written in Arabic although the participants are English teachers. This is because the purpose of the questionnaire is to collect data that is as accurate as possible, rather than completing the questions carelessly. Aiken (1997) confirms that questionnaires can minimise dishonest and careless reporting.

The questionnaire was designed using Likert scales with three answers; 'agree', 'I do not know' and 'disagree'. Not only were closed-ended questions presented but some open-ended were also given. What is more important, some questions were given in both closed and open ended format in order to get as precise data as possible. Oppenheim (1992) states that it is a good idea to ask the same question in both an open and closed format. Due to the importance of a pilot study, I emailed the survey to four Saudi PhD students who have a background in English-Arabic translation to check the validity of the questions. Beatty (2003) confirms "surveys need to be carefully piloted with a small group first".

After receiving the comments from the pilot study, instructions on how to complete the survey, along with the purpose of the research, was emailed to a number of English teachers. While the majority of the participants are English teachers in the ministry of education, there are some university teachers with experience ranging from 2 to 12 years. The questionnaire was sent in plenty of time to a great number of teachers, but only 24 participations were received. The total number of questions was 15, involving 13 closed-ended and 2 open-ended formats. All the questions were answered except for the 2 closed-ended questions that were skipped by the two participants. The purpose of the data analysis was to determine whether using computers and CMC tools fosters collaborative autonomous language learning.

The data shows that 18 participants agreed that computers, along with online tools facilitate the process of teaching and learning English as a foreign language. With the same number of proponents of using modern technology in the learning, they also agree that depending heavily on the textbook and the whiteboard as traditional educational methods, without utilising computers in the learning process is considered to be a major obstacle to learning a language, i.e. English. The survey shows that 83.3% confirm that using asynchronous tools, such as; emails and educational forums, promotes autonomous learning. Moreover, having a regular meeting between teachers and their students outside class times, through social networking tools such as 'Skype', is agreed by 66.7% of participants to be a helpful tool for effective communication and successful scaffolding. Emailing assignments and class activities, rather than handing them in, is welcomed at a high percentage of 87.5%. While 30.4% disagree with the idea that many students have a good background regarding computers 8.7% have no idea and 60.9% strongly agree. The data shows that the number of teachers who disagree that students know about computers' applications, decreased dramatically by half of the 16.7% when they asked about the possibility of students using educational programmes and websites in a self-study mode. This indicates that many students are equipped to use modern technology independently.

As part of collaborative teaching and learning, 91.7% agreed to give students the opportunity to help in lesson preparation. This high percentage goes hand in hand with the nature of CMC tools such as; wikis which encourage collaborative contributing to the whole content. What was particularly interesting from the results is that 41.7% have no idea about wikis and the possibility of incorporating them in the learning process, although they are familiar with the best known website 'wikipedia' and might have collaborated to the content.

One of the open-ended questions which reflects the research question of this paper was; "Research studies show that utilising computer and its applications in general and the Internet in particular encourage collaborative autonomous learning, what do you think?" The data showed that 20 out of 24 teachers agreed with the results of research studies.

Although all 24 answers are included in the 'Appendix', here are some selected answers with the author's translation: "The applications of computer can facilitate the learning process because students consider them more enjoyable than traditional methods. What is more, the Internet and authentic programmes foster autonomous learning and help a teacher to bridge the gap between students"; "I strongly agree with this idea on the condition that it should not take over the teacher's role"; "This is correct because the Internet is part of our life"; "It might improve autonomous learning but not collaborative learning".

This was a feasibility study into the practical effectiveness of using the Internet and CMC tools in CALL in the English Language classroom. While it was anticipated that the majority of respondents would favour increased use of CALL, the physical practicalities may affect the extent and the exact nature of implementation.

3.4 Conclusion

Kern (2006) stated that simply having CMC tools in language teaching and learning is insufficient to promote collaborative learning; they must be utilized effectively in order to achieve educational goals. Language teachers are expected to benefit from modern technology and to try to employ it in their teaching. Son (2004) confirms that CMC can help teachers both build their knowledge and reflect on their classroom practice. The improvement of teaching quality affects the way students learn and practise their skills. What is more important is that language instructors are expected to introduce the CMC tools, used in their teaching, so as to allow learners to confirm their validity. Whitworth (2009) stated that the incorporating of any technology into an educational situation should ideally be negotiated between teachers, learners and other stakeholders.

While research shows that using CMC in class promotes ELL's skills and increases their participation, Yang (2009) stated that encouragement and intervention are needed to help students make progress. A student has to be guided by teachers to select the most trusted

and relevant sites for self study. Scaffolding in the learning process is important to achieve learning objectives. Ellis (1998) describes the educational situation when a learner interacts with someone who can guide and support his/her learning as scaffolding. Due to the nature of many CMC tools, scaffolding might be encouraged through, for example, writing collaboratively.

Yang & Chen (2007) state that there are five Cs advocated by the American Council on the Teaching of Foreign Languages (ACTFL) to be applied to language learning; communicative, cultures, connections, comparisons, and communications. By looking at the advantages of internet-technology, it is obvious that blending common tools like chatting programmes and forums with teaching English achieves those five Cs. To conclude with the results from the project undertaken by Dooly (2007), they showed that 83% of students are completely satisfied with the improvements in their foreign language skills due to their collaborative online work and that in general they felt more confident about their communicative skills in the target language.

Conclusion

Both research studies and my data suggest that many students have a good background in modern technology in general and social tools in particular. This background might be helpful in their language development when language teaching is blended with technology. Schema theory (F.C. Bartlett, 1932), as cited by Beatty (2003), is applied when students communicate online and participate collaboratively in CMC tools. Beatty (2003) confirms that collaboration enables negotiation of meaning when learners try to build new schemata and extend existing ones. Nunan (1993) defines schema theory as "a theory of language processing which suggests that discourse is interpreted with reference to the background knowledge of the reader or listener".

Raby (2007) states; if students have more knowledge of the activity, they will encounter less trouble according to Piaget and Vygotsky's theories as applied to CALL. Not only do students encounter fewer difficulties with familiar activities, but this also leads to increased autonomous learning. According to Candy (1991), learners might achieve a high level of self-direction in areas with which they are familiar. The Internet, along with a variety of different social networking tools might be blended in language teaching and learning as a supportive and interactive environment tailored to learners' needs. This helps students become accustomed to the educational use of recent technology and practise their language in a more effective and productive way.

In order to achieve normalisation and effective utilisation of computers in language teaching and learning, it is recommended that this not only depends on the hardware and software available but also on "training for teachers, administrative and pedagogical support" (Bax, 2003). To take an example from my own experience, a computer lab in one of the best secondary schools in Saudi Arabia, where I taught English for four years had been abandoned for a few years because it was thought that the language learning is facilitated and encouraged simply by having computers.

It appears that language teachers are deemed to be essential to the learning process and that CMC tools will not take over teachers' role. This assumes that teachers will train themselves to effectively use the new technology and keep updated in order to be able to help their students gain linguistic skills. "Teachers must be prepared not only to learn about, understand and adjust to new learning environments, but to learn what they may afford in terms of learning and teaching opportunities. Equally importantly, they need to be critically aware of the expectations, norms and knowledge learners bring to online learning and to CMC in particular" (White, 2006).

Modern technology updates quickly and language teachers are supposed to keep abreast of changes. Chapelle & Jamieson (2008) confirm that a new acronym has been coined recently which might replace CALL; mobile-assisted language learning (MALL) and web-enhanced language learning (WELL). Although new technology has to a great extent been impacting the learning process, further research on CALL and ELT is greatly needed. Warschauer & Healey (1998) state; "research on the effectiveness of new technologies in education, including the use of computers in language teaching, has been as ongoing process".

To summarise, Kwok- Chi (2001) points out that there have been only a few empirical studies examining the challenges of using Computer Mediated Communication (CMC) as a meditational tool in the Asian sociocultural context. For this reason, this study tried to investigate the effectiveness of using the computer and its applications alongside the internet with collaborative autonomous learning in Saudi Arabian secondary schools.

Appendix

14. تشير بعض الأبحاث إلى أن استخدام الكمبيوتر وتطبيقاته وخصوصا الانترنت يساعد كثيرا في عملية التعلم التعاوني وكذلك الاستقلالية في التعلم في نفس الوقت ، مارأيك

answered question	**24**
skipped question	**0**
	Response Count
Hide replies	24

25 responses per page

1.	انا ارى وبتجربتي القصيره والمتواضعه ان رايي يطابق رايه وشكرا	Sat, Aug 14, 2010 4:20 PM	Find...
2.	هذا صحيح فلقد أصبحت الأنترنت جزء من حياتنا	Sun, Jul 4, 2010 8:12 AM	Find...
3.	من الموكد انه الانترنت راح يساعد كثيرا في عمليه التعلم. تنوع وسائل التعليم لدى الطالب واستخدامه للنترنت راح يكسبهم خبرات من بعض و،مهارات بحيث تساعدهم على تنميه قدراتهم من خلال تعاونهم. ايضا راح تكون حافز للطلاب على عمليه الاكتشاف و الابتكار فيكون هناك نوع من التشويق والاثاره اثناء التعلم.	Sat, Jul 3, 2010 5:14 PM	Find...
4.	لا أوافق كثيراً على هذا الرأي، فالواقع مثلاً عندنا في بعض الجامعات السعودية عدم وجود التجهيزات اللازمة، وعدم وجود التدريب الكافي، وليس جميع الطلاب بمقدورهم الحصول على أجهزة الكمبوتر والاتصال السريع الذي لا يغطي أجزاء كثيرة من المملكة.	Thu, Jul 1, 2010 9:05 PM	Find...
5.	يمكن تسخير تطبيقات الكومبيوتر والانترنت بشكل فعال وذلك لأن الطلاب لا يجدونها مملة كالوسائل التقليدية كما أنه اذا وجدت برامج انترنت تعليمية موثوقة المصدر فذلك سيعزز التعليم الذاتي ويساعد المعلم في اداء مهمته والتواصل مع طلابه ويعطي الطلاب مساحة من الاستقلالية في التعلم	Thu, Jul 1, 2010 12:58 AM	Find...
6.	I agree, we don't need to spoon feed our students and kill their creativity.	Wed, Jun 30, 2010 8:39 PM	Find...
7.	نوعا ما اذا كان للطلاب القابلية للتعلم	Mon, Jun 28, 2010 3:38 AM	Find...

14. تشير بعض الأبحاث إلى أن استخدام الكمبيوتر وتطبيقاته وخصوصا الانترنت يساعد كثيرا في عملية التعلم التعاوني وكذلك الاستقلالية في التعلم في نفس الوقت ، مارأيك

8.	اوافق	Sun, Jun 27, 2010 7:12 PM	Find...
9.	نعم لإرتباط الأفكارمعا القاصية والدانية واظهار التجارب والبحوث. وأما الإستقلالية فالأنترنت هو من ساعد على ظهورها وأصبح التقنية الحديثة المساعدة لها	Sun, Jun 27, 2010 1:16 PM	Find...
10.	اوافق	Sun, Jun 27, 2010 7:36 AM	Find...
11.	صحيح. الأمر في حاجة إلى تدريب وترويض حتى نتمكن من الإفدة من تطبيقات الحاسوب في مجال التعلم والتكوين	Wed, Jun 23, 2010 8:55 PM	Find...
12.	يزيد من تطوير التعليم الذاتي لدى الفرد ولكن ينقص من اهمية التعليم التعاوني عند الطلاب	Wed, Jun 23, 2010 6:20 PM	Find...
13.	I do agree	Tue, Jun 22, 2010 8:43 PM	Find...
14.	I strongly agree with this point.	Tue, Jun 22, 2010 5:58 AM	Find...
15.	yes	Mon, Jun 21, 2010 4:14 PM	Find...
16.	ربما ولكن اعتقد أن الاعتماد الكلي على الكمبيوتر يفقد الجو التعليمي والأكاديمي جديته في معظم الأحيان	Mon, Jun 21, 2010 6:19 AM	Find...
17.	أوافق	Mon, Jun 21, 2010 5:34 AM	Find...
18.	إلى حد ما صحيح إذا كانت هناك عزيمة من الطالب	Mon, Jun 21, 2010 3:33 AM	Find...
19.	نعم واميل لهذا الرأي بشدة ولكن لا يلغي دور المعلم ابدا	Mon, Jun 21, 2010 3:23 AM	Find...
20.	اوافق	Mon, Jun 21, 2010 12:07 AM	Find...

14. تشير بعض الأبحاث إلى أن استخدام الكمبيوتر وتطبيقاته وخصوصا الانترنت يساعد كثيرا في عملية التعلم التعاوني وكذلك الاستقلالية في التعلم في نفس الوقت ، مارأيك

21.	أعتقد أن هذا صحيح. ولكن تبقى المشكلة في كثرة الغث من المواقع والبرامج، لذلك أعتقد أنه يجب صرف جزء من الوقت لعملية إختيار الأنسب منها.	Sun, Jun 20, 2010 10:46 PM	Find...
22.	انا لا اوفق على استقلالية التعلم عن طريق الكمبيوتر كوسيلة وحيد لتعلم اللغة لان المتعلم يحتاج الى فك بعض الشيفرات في بعض قواعد اللغة ومعرفة كيفية الوصول الى الى ما وصلت اليه المعلومة لذا بدون معلم اعتقد ان الامر يكون صعبا جدا او ان تبقى حلقة مفقودة	Sun, Jun 20, 2010 10:33 PM	Find...
23.	اتفق مع هذا في حال سلمنا ان لدي الطالب المهارات التقنيه اللازمه توفر التقننيات المطلوبه معرفه الطالب بالاسلوب الصحيح لاستخدام تلك المهارات والاهم ان لدي المعلم القابليه لان يستخدم تلك التقنيات لغرض التعليم وليس فقط لغرض الاستخدام	Sun, Jun 20, 2010 9:24 PM	Find...
24.	رأي معقول ومقبول	Sun, Jun 20, 2010 7:10 PM	Find...

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