Assiut University
Faculty of Education
Curriculum & Instruction Dept.

Computer-Assisted Language Learning (CALL)

FOR

4th Year EFL Student Teachers

By

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Preface

Computer-Assisted Language Learning (CALL) for 4th Year EFL Student Teachers is a complementary language teaching methodology course, with a specific focus on computer-assisted language learning approaches, methods, techniques and procedures as well as the computer-based tools, devices, applications and facilities that can be used to facilitate language learning.

With the dominant use of computer and Internet technologies nowadays, it has become necessary that our teaching methodology courses should be updated accordingly; they should include insightful guidance into how to teach English as a foreign language with the aid of computers and the web – including laptops, tablets, and smart phones.

The potential to enhance English learning through technology in general and computer-based tools, applications, devices and facilities in particular, has become increasingly a hot topic today. Practically speaking, the ability to use, merge and integrate technology - including computer and web-based tools - into the classroom is a core skill for English language teachers in the 21st century. From a literacy perspective, English language teachers need to cope with learners' new literacy practices (e.g. social networking, composing messages on mobile phones, using WhatsApp in daily communication, sharing resources online, etc.) in order to properly reach them. If teachers do not consider these new literacy practices in their teaching, a literacy gap will appear.

The course is the first CALL course offered at Faculty of Education, Assiut university based on the new bylaws and regulations introduced in the academic year 2017/18. It introduces pre-service English teachers to CALL with the aim of focusing on the 'how to' aspect of integrating computer-based technologies into English language teaching and learning contexts. It takes into consideration the dialogic relationship and the complex interaction between language learning content (i.e., reading, writing, speaking, listening, vocabulary and grammar), pedagogy and language instruction (e.g., communicative language teaching and task-based approaches), and technology (i.e., affordances and constraints of different technological tools) with an awareness of the social and linguistic implications. In addition, the course aims to develop a hybrid CALL practitioner, developer, researcher, and trainer in this field. Thus, this course addresses TESOL fundamental concepts, knowledge, skills, and attitudes that enhance pre-service teachers' technological competencies and promote their integration of

Computer Assisted Language Learning (CALL) technology into English language-teaching settings and curriculum with confidence, knowledge, and practice. Therefore, the main goals of the course are represented in:

1. acquainting pre-service English language teachers with the foundational knowledge, competencies and skills in technology in general and computers and the Web in particular, for professional purposes;
2. developing pre-service EFL student teachers' theoretical understanding of the relationship between computers and the Web on one hand, and English language teaching/learning on the other;
3. expanding pre-service EFL student teachers' knowledge base in TESOL/TEFL to encompass new CALL theories, approaches, strategies, methods and techniques;
4. developing pre-service EFL student teachers' computer-based and language-related literacy practices;
5. exploring the possible application of computers and Web-based technologies in English language learning;
6. assisting pre-service EFL student teachers in using computer-based technologies and facilities in the classroom for a variety of language learning purposes;
7. integrating pedagogical knowledge and skills with technology to enhance language teaching and learning; and
8. applying technology and computer-based practices into instruction (e.g. record keeping, feedback, and assessment).

Mahmoud Abdallah
Assiut, Egypt (July, 2021)

Course Specifications

Computer-Assisted Language Learning (CALL)

1- Course Details:		
Code: CURR421	**Course Title:** Computer-Assisted Language Learning	**Level:** 4th year (2nd Semester)
Major: Bachelor of Arts & Education (English Section)	**No. of Units:** Lecture (2 hours)	
Aims:	By the end of the course, EFL student teachers are expected to analyse the major theories and principles behind the computer-based methods, techniques, and strategies that would help them to teach language aspects and skills effectively through computers. This involves: 1. Presenting a historical and theoretical overview of the evolution of CALL and increasing awareness of its possibilities, integration principles, and limitations. 2. Acquainting EFL student teachers with knowledge and understanding of how to use computer-based technologies for a variety of English language teaching and learning purposes. 3. Expanding EFL student teachers' knowledge base in TESOL/TEFL to include the specific instructional approaches, methods, strategies and techniques that are based on computers and the Web. 4. Evaluating and making decisions about current CALL resources and uses in language classrooms as well as understanding the related human, cultural, ethical, and legal issues. 5. Developing EFL student teachers' ability to use	

	different CALL forms and activities to meet the goals of the English language curriculum as well as their students' needs, abilities and literacy practices. 6. Developing EFL student teachers' language proficiency and technological literacy in order to effectively implement a CALL-based lesson plan. 7. Increasing EFL student teachers' awareness of the current language learning needs and capability of maintaining up-to-date knowledge of CALL through a variety of appropriate sources.

Contents:	Week	Topic	No. of Hours
	1	Chapter One: Introducing Computer-Assisted Language Learning (CALL) (1)	2
	2	Chapter One: Introducing Computer-Assisted Language Learning (CALL) (2)	2
	3	Chapter Two: CALL: From Theory to Practice (1)	2
	4	Chapter Two: CALL: From Theory to Practice (2)	2
	5	Chapter Three: CALL and Teaching/Learning Language Skills	2
	6	Chapter Four: CALL and the Web	2
	7	**Midterm Test**	**2**

	8	Chapter Five: CALL and Online Language Learning Approaches	2
	9	Chapter Six: Wikis & Wikipedia	2
	10	Chapter Seven: WebQuest Strategy	2
	11	Chapter Eight: Social Networking and Language Learning	2
	12	Chapter Nine: Virtual Language Learning Environment (1)	2
	13	Chapter Nine: Virtual Language Learning Environment (2)	2
	14	Revision & Reflections	2
	15	Revision & Reflections	2
	16	**Final Exam**	**2**

Teaching and Learning Methods	Lecturing Discussion Micro-teaching and practical workshops Online learning
Teaching and Learning Methods for Low & Gifted Learners	Giving them special exercises and written assignment Discussing their mistakes privately after class Online learning (for gifted learners) Reflective learning (for gifted learners)
Evaluation:	

a) Tools	- Mid-term written test - Final- term written test - Oral presentations - Online reports
b) Time Schedule	-A lecture every week, with each chapter/topic being covered either in one lecture or in two successive lectures depending on the length of each chapter -The last 2 weeks are allocated for revision - Mid-term exam week 7 -Final exam week 16
c) Grading System	Semester work=20 Written exam=80 ***Total=100***

List of References:

a- Course Notes	Notes in CALL: Abdallah, M. M. S. (2021). *Computer-Assisted Language Learning (CALL) for 4th Year EFL Student Teachers*. Faculty of Education, Assiut University, Egypt.
b- Required Books (Text Books)	- Abdallah, M. M. S. (2011). *Teaching English as a Foreign Language from a New Literacy Perspective: A Guide for Egyptian EFL Student Teachers*. VDM Verlag Dr. Müller, Saarbrücken, Germany. Abdallah, M. (2019). *TESOL/TEFL Methodology 2: Advanced Language Teaching/Learning Strategies* (2nd ed). Faculty of Education, Assiut University, Egypt. Hanson-Smith, E. (2001). Computer-assisted language learning. *The Cambridge Guide to Teaching English to Speakers of Other Languages*. Cambridge University Press

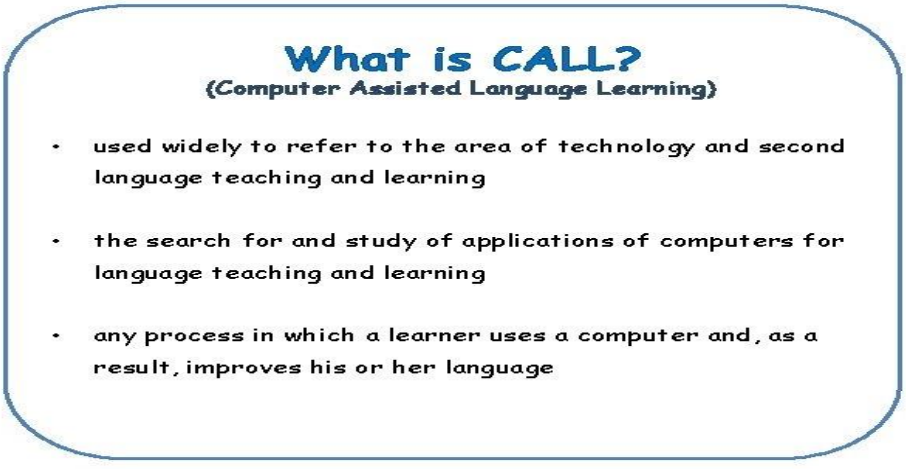
c- Reference Books	Warschauer, M. (2000). ‘‘CALL for the 21st Century’’ *IATEFL and ESADE Conference*, 2 July 2000, Barcelona, Spain.
d- Periodicals	Computer-Assisted Language Learning; English Teaching Forum; Arab World English Journal (AWEJ); TESOL Quarterly

CHAPTER ONE

Introducing Computer-Assisted Language Learning (CALL)

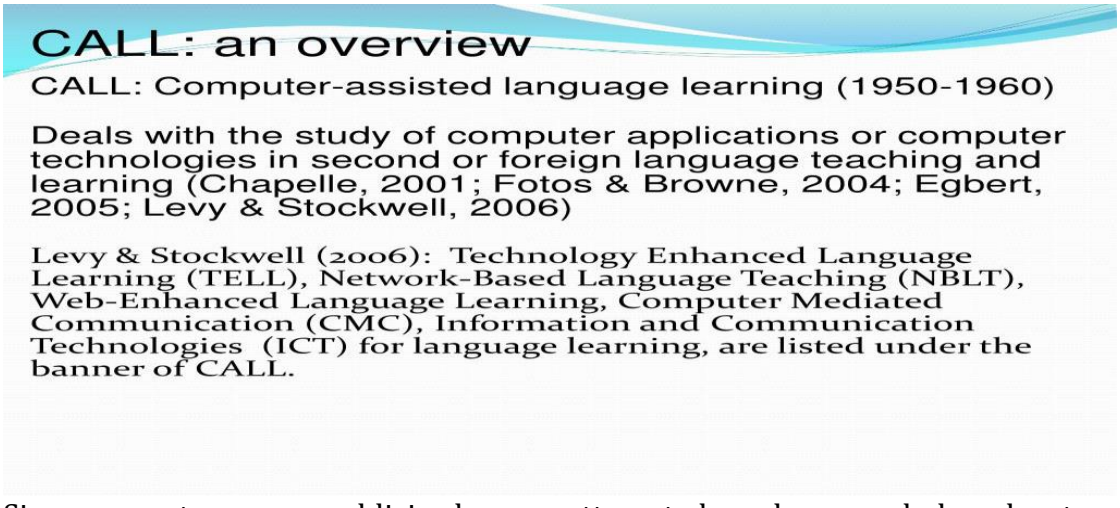
1.1 Meaning and Rationale

According to Wikipedia, Computer-assisted language learning (CALL) is succinctly defined in a seminal work by Levy (1997: p1) as "the search for and study of applications of the computer in language teaching and learning". In this sense, it is the general term for the range of processes and activities that employ computers in the teaching and learning of a new language. In other words, CALL is an ***approach*** in language learning in which a computer presents material to the learner or where the computer is used as a tool to aid language learning: i.e. computer technology is used as an aid to the presentation, reinforcement and assessment of material to be learned, usually including a substantial interactive element.



Given the breadth of what may go on in computer-assisted language learning (CALL), a definition of CALL that accommodates its changing nature is any ***process*** in which a learner uses a computer and, as a result, improves his or her language (Beatty, 2003, p. 7). CALL has come to encompass issues of materials design, technologies, pedagogical theories and modes of instruction. Materials for CALL can include those which are purpose-made for language learning and those which adapt existing computer-based materials, video and other materials (Beatty, 2003, pp. 7-8).

CALL embraces a wide range of ICT applications and approaches to teaching and learning foreign languages, from the "traditional" drill-and-practice programs that characterised CALL in the 1960s and 1970s to more recent manifestations of CALL, such as the virtual learning environment and Web-based distance learning. It also extends to the use of corpora, interactive whiteboards, and computer-mediated communication (CMC).



Since computers were publicised, many attempts have been made by educators

and educational researchers to integrate them into the educational process in general and into language learning in particular. Thus, researchers and educators have been exploring the possibilities that computers can afford for improving language learning and teaching and enabling learners to achieve the maximum learning benefits, no matter whether the computer is used as a *tool*, a *learning environment*, or a *tutor* (Hanson-Smith, 2009).

1.2 History of CALL

The ***origins*** of CALL can be traced back to the 1960s. Up until the late 1970s, CALL projects were confined mainly to universities, where computer programs were developed on large mainframe computers. The PLATO project, initiated at the University of Illinois in 1960, is an important landmark in the early development of CALL. In the late 1970s, the arrival of the **personal computer** (PC) brought computing within the range of a wider audience, resulting in a boom in the development of CALL programmes and a flurry of publications. Early CALL favoured an approach that drew heavily on practices associated with programmed instruction. This was reflected in the term ***Computer Assisted Language Instruction*** (CALI), which originated in the USA and was in common use until the early 1980s, when CALL became the dominant term (Davies, 2016).

Much of the early history of computers in language learning, in the 1980s and 1990s, was concerned with keeping abreast of technological change. Mainframe computers were at first seen as the taskmaster: a number of content courses, particularly in English grammar and computer science were provided by the

PLATO system at many universities. Students 'mastered' each individual topic - which consisted of presentation and 'practice' in the form of tests - in solitary confinement in a language laboratory. However, the continual miniaturisation of electronics has given us increasingly smaller, faster and more powerful desktop computers. At the start of the twenty-first century 'multimedia' has become virtually synonymous with 'computer' (Hanson-Smith, 2001).

With these changes, issues in computer-assisted language learning (CALL) have also evolved from an early emphasis on how to use the new technology to research on technology's effects on learning. Higgins and Johns (1984) framed the major debate of the 1980s and early 1990s over whether the computer was 'master' of or 'slave' to the learning process: Was the computer to be a replacement for teachers, or merely an obedient servant to students? (Hanson-Smith, 2001)

In the early 90's education started being affected by the introduction of ***Word processors*** in schools, colleges and universities. This mainly had to do with written assignments. The development of the **Internet** brought about a revolution in the teachers' perspective, as the teaching tools offered through the Internet were gradually becoming more reliable. Nowadays, the Internet is gaining immense popularity in foreign language teaching and more and more educators and learners are embracing it (Rima, 2008).

CALL has gone through many stages that go side by side with the rapid developments occurring in new technologies which coalesced in the emergence of the Internet or the Web. These stages were identified by Warschauer and Healey (1998) as: (1) behaviouristic CALL, (2) communicative CALL, and (3) integrative CALL. Each stage corresponds to a certain level of technology as well as a certain pedagogical approach.

Structural CALL or ***Behaviouristic*** CALL (1970-1980) marked the first generation in which the main focus was on employing some computer software and/or applications to help language learners with drilling and practising new language content (Warschauer & Healey, 1998). In this sense, computer programmes and/or software were devised mainly for drilling purposes; language learners were exposed to computers as an aid that should help them to internalise the traditional linguistic content at an individual pace.

The language teaching/learning methods that were dominant at that time were the ***Grammar-Translation*** and ***Audiolingual methods***. Language was seen as made up of discrete units, and these units were considered to be closely interconnected and interacting according to a predictable and explainable set of rules (grammar). Teachers taught these grammatical rules and repetitively drilled their classes on different ways the rules can be correctly applied.

Computers at this stage were mainly utilized as devices that could present stimuli repetitively in exactly the same manner without ever getting tired. An example of

this are the "listen-and-repeat" programmes running in language labs at that time.

Table 1: Warschauer's three stages of CALL

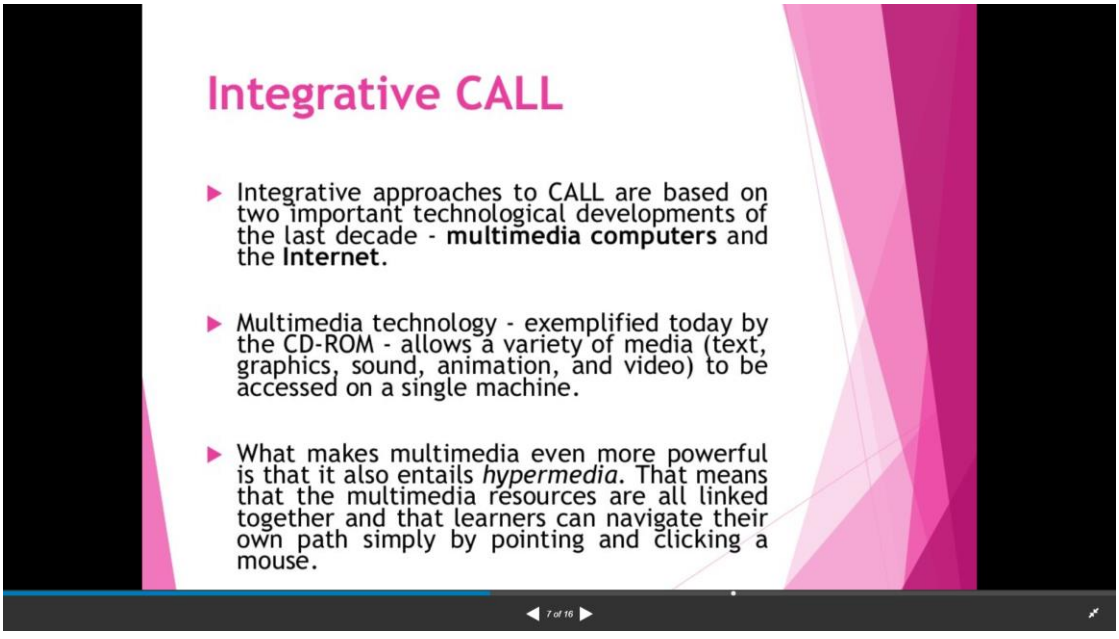
Stage	1970-1980 Structure CALL	1980-1990 communicative CALL	21th century integrative CALL
Technology	Mainframe	PCs	Multimedia and internet
English teaching paradigm	Grammar translation and Audio-lingual	communicate language teaching	Content –Based ESP-EAP
View of language	Structure(formal structure system)	Cognitive (mentally constructed system)	Socio-cognitive(developed in social interaction)
Principal use of computer	Drill and practice	Communicative exercises	Authentic discourse
Principal	Accuracy	Fluency	Agency

(Warschauer, 2000).

The next stage, ***communicative CALL***, emerged in the late 1970s and early 1980s, at the same time that behaviouristic approaches to language teaching were being rejected at both the theoretical and pedagogical level, and when new personal computers were creating greater possibilities for individual work. Proponents of communicative CALL stressed that computer-based activities should: focus more on ***using*** forms (content) than on the forms themselves; teach grammar implicitly rather than explicitly; allow and encourage students to generate original utterances rather than just manipulate pre-fabricated language; and use the target language predominantly or even exclusively. Communicative CALL corresponded to cognitive theories which stressed that learning was a process of ***discovery***, expression, and development. Popular CALL software developed in this period included text reconstruction programs (which allowed students working alone or in groups to rearrange words and texts to discover patterns of language and meaning) and simulations (which stimulated discussion and discovery among students working in pairs or groups). For many proponents of communicative CALL, the focus was not so much on what students did with the machine, but rather on what they did with each other while working at the computer (Warschauer & Healey, 1998).

Though communicative CALL was seen as an advance over behaviouristic CALL, it too began to come under criticism. By the late 1980s and early 1990s, critics pointed out that the computer was still being used in an ad hoc and disconnected fashion. This corresponded to a broader re-assessment of communicative language teaching theory and practice. Many teachers were moving away from a ***cognitive*** view of communicative teaching to a more ***social*** or ***socio-cognitive***

view, which placed greater emphasis on language use in authentic social contexts. Task-based, project-based, and content-based approaches all sought to integrate learners in authentic environments, and also to integrate the various skills of language learning and use. This led to a new perspective on technology and language learning termed ***integrative CALL***, a perspective which seeks both to integrate various skills (e.g., listening, speaking, reading, and writing) and also to integrate technology more fully into the language learning process. In integrative approaches, students learn to use a variety of technological tools as an ongoing process of language learning and use, rather than visiting the computer lab on a once a week basis for isolated exercises.



Early personal computers were incapable of presenting authentic recordings of the human voice and easily recognizable images, but this limitation was

overcome by combining a personal computer and a 12-inch videodisc player, which made it possible to combine sound, photographic-quality still images and video recordings in imaginative presentations - in essence the earliest manifestation of ***multimedia CALL***. The arrival of the ***multimedia computer*** in the early 1990s was therefore a major breakthrough as it enabled text, images, sound and video to be combined in one device and the integration of the four basic skills of listening, speaking, reading and writing (Davies, 2011).

The result was the development of interactive videodiscs for language learners such as Montevidisco and Expodisc, all of which were designed as simulations in which the learner played a key role. The techniques learned in the 1980s by the developers of interactive videodiscs were adapted for the multimedia personal computers (MPCs), which incorporated CD-ROM drives and were in widespread use by the early 1990s (Davies, 2016). CALL programmes are still being published on CD-ROM and DVD, but Web-based multimedia CALL has now virtually supplanted these media.

Multimedia CALL covers a wide range of visually and/or aurally enhanced instructional materials, from audio recordings, picture flash cards, graphically annotated texts, and subtitled television broadcasts to interactive educational software applications such as courseware, interactive videodisks, and digital games (Desmet & Cornillie, 2012).

CALL was a relatively specialised field in the 1970s and 1980s, attracting the attention of a small number of educators with a particular interest in computers. In the 1990s, though, with the popularisation of the ***Internet*** – which was

produced in 1992 and became available to the public in 1993, the use of computers in language teaching expanded by leaps and bounds. For the first time, learners of the English language could practise the language 24 hours a day with native speakers and other learners around the world (Warschauer, et al., 2000: p. 31).

The first decade of the 21st century saw a continuation of all the previous areas along with the growth of language learning applications and activities for mobile devices, especially mobile phones (MALL), the spread of Web 2.0 (http://en.wikipedia.org/wiki/Web_2.0) and social media, and experimentation with language learning in virtual worlds. Increasingly, CALL was being integrated into language learning activities both in and out of class. In particular, streaming video services like Youtube made it possible to have access to an incredible supply of free, authentic spoken-language and cultural material. In the 2010s we have witnessed the incredible spread of smartphones and their apps into our lives, rapid expansion of streaming media, video CMC through Skype and many other applications, ubiquitous computing (including wearables, like watches), gamification, and increasing normalization, the last referring to a state where we're so used to technology we may stop thinking about it as creatively. The range of options continues to grow at a much faster pace than our understanding of them.

More recent approaches to CALL have favoured a ***learner-centred, explorative*** approach rather than a teacher-centred, drill-based

approach to CALL. The explorative approach is characterised by the use of concordance programs in the languages classroom - an approach described as Data-Driven Learning (DLL) by Tim Johns (Davies, 2016).

From another perspective that considers the degree or level of using CALL and based on Warschauer and Haley (1998) and Warschauer (2000), Bax (2003) proposed these three phases of CALL:

1- **Restricted CALL** – mainly behaviouristic: 1960s to 1980s.
2- **Open CALL** – i.e. open in terms of feedback given to students, software types and the role of the teacher, and including simulations and games: 1980s to 2003
3- **Integrated CALL** – still to be achieved. Bax argued that at the time of writing language teachers were still in the Open CALL phase, as true integration could only be said to have been achieved when CALL had reached a state of "normalisation" – e.g. when using CALL was as normal as using a pen.

1.3 Integrated CALL and normalisation

Normalisation is a concept that was proposed by Bax (2003) in one of his interesting early articles on CALL. He argues that in order to understand the extent to which CALL is truly integrated into a classroom or into an institution or into a particular teacher's practice, we can look at how an innovation comes to be accepted and effective in its new domain. However, let us start by identifying an end goal for CALL: the clearest way of defining this goal is through the concept of 'normalisation' (Bax, 2000). This concept is relevant to any kind of technological

innovation and refers to the stage when the technology becomes invisible, embedded in everyday practice and hence 'normalised'. To take some commonplace examples, a wristwatch, a pen, shoes, writing—these are all technologies which have become normalised to the extent that we hardly even recognise them as technologies (Bax, 2003).

Normalisation is therefore the stage when a technology is invisible, hardly even recognised as a technology, taken for granted in everyday life. CALL has not reached this stage, as evidenced by the use of the very acronym 'CALL'—we do not speak of PALL (Pen Assisted Language Learning) or of BALL (Book Assisted Language Learning) because those two technologies are completely integrated into education, but CALL has not yet reached that normalised stage. In other words, one criterion of CALL's successful integration into language learning will be that it ceases to exist as a separate concept and field for discussion. CALL practitioners should be aiming at their own extinction (Bax, 2003).

CALL will reach this state when computers (probably very different in shape and size from their current manifestations) are used every day by language students and teachers as an integral part of every lesson, like a pen or a book. Teachers and students will use them without fear or inhibition, and equally without an exaggerated respect for what they can do. They will not be the centre of any lesson, but they will play a part in almost all. They will be completely integrated into all other aspects of classroom life, alongside coursebooks, teachers and notepads. They will go almost unnoticed (Bax, 2003).

Most importantly, CALL will be normalised when computers are treated as always secondary to learning itself, when the needs of learners will be carefully analysed first of all, and then the computer used to serve those needs. Bax (2000) tried to discuss in detail what this means for CALL and the teaching of grammar, vocabulary and language skills. Technology will then be in its proper place.

These features are not widely observed at the moment, and therefore, we cannot assume that we are currently in an Integrative phase. In fact, it may take several years for these practices to become commonplace. However, it is possible to plan for this normalised state and then move towards it—indeed this offer and structure our entire agenda for the future of CALL. The first step is to identify the criterial factors which normalisation requires. The second is to audit the practice of each teaching context in the light of these criteria; the final step is to adjust our current practice in each aspect so as to encourage normalisation. Following this procedure will give each institution and teacher a clear framework within which to audit progress, and within which any obstacles to integration and normalisation can be identified and dealt with (Bax, 2003).

How can normalisation occur? The literature on the way in which innovations become gradually accepted in social groups is summarised and best exemplified by Rogers (1995). The discussion of that body of research is highly pertinent to CALL. However, we also need to add to it certain elements such as the definition of the end-goal for CALL in terms of normalisation. We also need to identify some of the key stages towards that goal. Drawing on Rogers (1995), we can

summarise the probable progress of CALL towards normalisation as follows: Stages of normalisation in CALL:

1. Early Adopters. A few teachers and schools adopt the technology out of curiosity.
2. Ignorance/scepticism. However, most people are sceptical, or ignorant of its existence.
3. Try once. People try it out but reject it because of early problems. They can't see its value—it doesn't appear to add anything of 'relative advantage' (Rogers, 1995).
4. Try again. Someone tells them it really works. They try again. They see it does in fact have relative advantage.
5. Fear/awe. More people start to use it, but still there is (a) fear, alternating with (b) exaggerated expectations.
6. Normalising. Gradually it is seen as something normal.
7. Normalisation. The technology is so integrated into our lives that it becomes invisible—'normalised' (Bax, 2003).

CHAPTER TWO

CALL: From Theory to Practice

2.1 Introduction

First of all, we have to admit that technology itself does not teach; but it is the way we use and employ it that makes a difference in learning. Students nowadays are exposed to new technologies that include different types of computerised tools and devices (e.g. tablets, smart phones and smart watches), which are handy, and thus can be used for many everyday life purposes. Therefore, I wonder: why don't teachers employ such handy devices for formal learning purposes inside the classroom?

Underlying the use of the technology are the language learning goals that the teacher (or learner) has in mind, and it should be kept in mind that technology itself cannot contribute to learning a language. Healy (1999) puts this very accurately with her metaphor that, "…technology alone does not create language learning any more than dropping a learner into the middle of a large library does" (Stockwell, 2014).

CALL applications can be used by teachers as technology partners in running their classrooms from the initial intro of language concepts to the giving of electronic homework. Students are using computers in practically every other aspect of their lives anyway, from locating the nearest coffee shop to shopping for new shoes. So why not throw learning a new language to the mix?

The current philosophy of CALL puts a strong emphasis on **student-centred** materials that allow learners to work on their own. Such materials may be structured or unstructured, but they normally embody two important features: **interactive** learning and **individualised** learning. CALL is essentially a tool that helps teachers to facilitate the language learning process. It can be used to reinforce what has already been learned in the classroom or as a remedial tool to help learners who require additional support.

The field of computer-assisted language learning (CALL) is, by the very nature of its dependence on technology, one that is in a constant state of change. As a result of this change, it may be argued that theory, research, and even practice in the field struggle to keep pace with these technological developments. Given the centrality of technology in CALL, any discussions of theory, research or practice must take into the consideration the impact that technology has, not only on the learning process, but also on the reasons for and the focus of research undertaken in the field, and the range of factors which may contribute to how and why technology is employed in a given context (Stockwell, 2014).

2.2 CALL: Language Learning Theory and Pedagogy

A language learning theory or pedagogy should guide and inform the choice of technology and how it is used. Collectively, **CALL theory** is 'the set of perspectives, models, frameworks, and specific theories that offer generalizations to account for phenomena related to the use of computers and the pursuit of language learning objectives, to ground relevant research agendas, and to inform

effective CALL design and practice.... a CALL theory is a set of claims about the meaningful elements and processes within some domain of CALL, their interrelationships, and the impact that they have on language learning development and outcomes' (Hubbard, 2009: 3). Unlike the case of second language acquisition in general, CALL does not have a dedicated theory yet and based on current trends it is unclear whether it will ever have a comprehensive one. Instead, CALL theory comprises the "set" mentioned above, a set drawn from a number of sources including SLA theories, general learning theories, linguistic theories, and human-computer interaction theories.

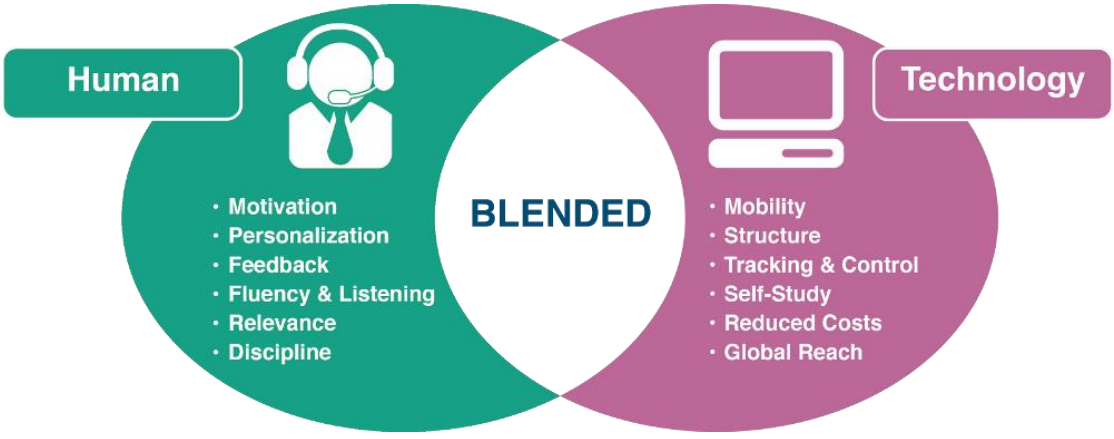
A strong advocate of ***drills*** may see the technology of choice - be it a desktop computer, mobile phone or tablet computer - as a ***tool*** in which to achieve this, providing answers to questions generated from some kind of a database. The types of activities that they design will likely fit this view, and as such the technology and the software that is used will need to make this possible. In contrast, a person who advocates **natural communication** between learners may believe that social networking service (SNS) sites provide exactly the environment that they would like to use with their learners, allowing them to communicate with each other through Facebook or some other tool. In this case, the choice of technology has become something completely different from the advocate of drills, and the manner in which the technology is used would be affected by this view. In this way, it becomes very clear that the impact of the ***theory*** that is applied to a given situation is likely to have a very wide-reaching impact on all aspects of how CALL is conceptualized and conducted (Stockwell, 2014).

Learning Theories

Theory	Learning is viewed as:
Behaviorism	… conditioning … 'stimulus-response' …
Cognitivism	… mental processing: information comes in, is processed, and leads to certain outcomes
Constructivism	… an active, contextualized process of constructing knowledge …

It is conceivable that practitioners in CALL apply ***multiple theories*** at the same time, depending on their needs in a given teaching and learning situation. This means that it is important to be aware of the purpose of theory and to ensure that conflicts in theories are avoided. For example, some teachers and practitioners might adopt a ***blended learning*** approach, in which case online learning is combined with face-to-face interactions. This is in its simplest forms, as blended learning means other different things. Driscoll (2002) presents four different senses that can explain the varieties the approach has taken: (1) combining or mixing Web-

based technologies to accomplish an educational goal; (2) combining pedagogical approaches (e.g., constructivism, behaviourism, and cognitivism) to produce an optimal learning outcome with or without instructional technology; (3) combining any form of instructional technology with face-to-face instructor-led training; and (4) combining instructional technology with actual job tasks (Abdallah, 2011b).



Other teachers might simultaneously adopt a ***socio-constructivist*** pedagogy a long with a ***situated learning*** approach, drawing on the strengths of both in the teaching/learning situation; in this sense, socio-constructivist learning involves learners in social interactions while exploiting their previous knowledge, while situated learning involves them in realistic language learning scenarios, such as Community of Practice (CoP), cognitive apprenticeship and task-based language learning (Abdallah, 2019).

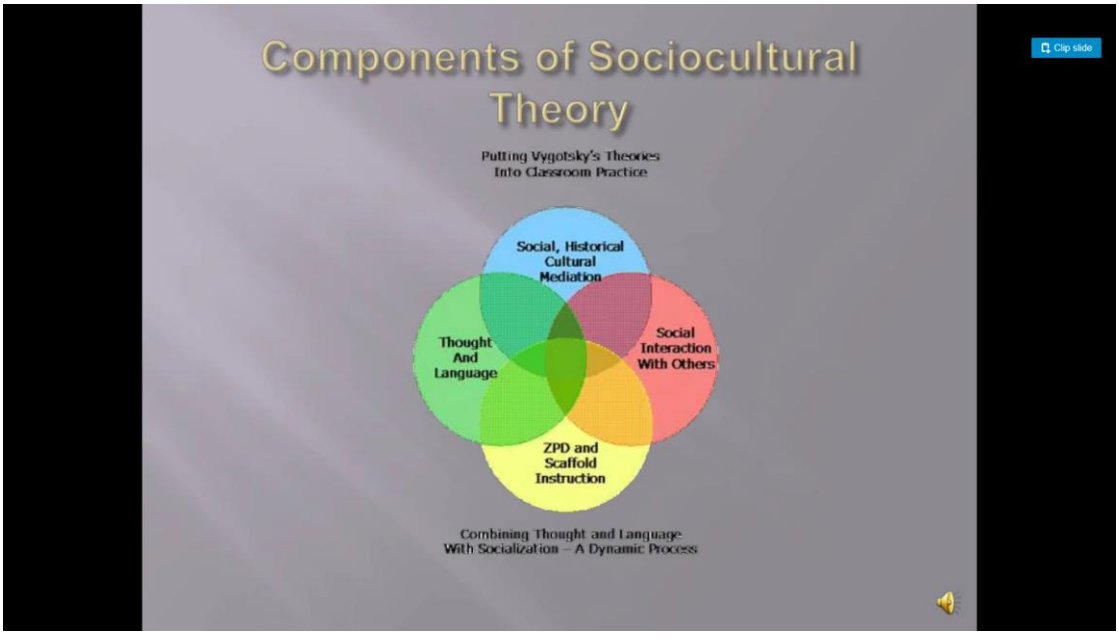
The ***socio-cultural learning theory*** (socio-culturalism) was originally developed by Vygotsky (1978). From a socio-cultural standpoint, human learning is defined

as a dynamic social activity that is situated in physical and social contexts, and distributed across persons, tools (e.g. computer software), and activities (Vygotsky, 1978; Wertsch, 1991). The core of the theory is that the ***external social processes***, rather than the internal cognitive ones, ***mediate*** and shape human learning. In other words, according to Vygotsky (1978), any psychological function appears on two planes: first on the ***social plane*** (i.e. during social interaction), and then on the ***psychological plane*** of the individual. Thus, learning starts in a social context as a social event which the individual ***appropriates*** through ***cultural tools*** (e.g. computers and the Internet) into his/her psychological structure, not the other way around (Abdallah, 2011a).

Highlighting the social, collaborative nature of learning, the theory posits that the individual is ***inseparable*** from his/her social context, and consequently, cognitive development is viewed as a socio-cultural activity where cognition is seen as a social product achieved through ***interaction***, whether directly (face to face) or mediated by computers. Thus, the individual constructivist development of the learner is still in focus, but such development would not be possible without the social interactions promoting learning in a meaningful context. This ***socio-cultural*** focus recognises the importance of learning as a ***social experience***, even when the individual learner is physically alone on his/her computer chatting with others online. Thus, the social processes are vital for learning to occur (Abdallah, 2011a).

In language learning terms, these social processes facilitate the production of discourses, artefacts, and resources useful in language learning (Singh &

Richards, 2006). The concept of ***Zone of Proximal Development (ZPD)***, or, in instructional terms, ***scaffolding*** as a prominent practice in language teaching (Erben et al, 2009), is a key concept here. Vygotsky (1978: p86) defines ZPD as "the distance between the ***actual*** developmental level as determined by individual problem solving and the level of ***potential*** development as determined through problem solving under adult guidance or in collaboration with more capable peers". In educational terms, ZPD is the ***interactional space*** within which a learner is enabled to perform a task beyond his/her current level of competence through assisted performance or scaffolding, and hence the internalisation of the social interactive processes happens (Ohta, 2000; Wertsch, 1991).



While there are several theories that relate to how humans interact with technologies, two theories that appear to be immediately applicable to the way in which technology may be used in language learning are distributed cognition and situated learning. The concept of ***distributed cognition*** was first conceived by Hutchins (1995a) as a means of examining the real-world flow of representations in cooperative work settings. Since then, the concept has been expanded to include the way in which cognition occurs as a process that combines both internal and external memory and processing functions. Hutchins's view emphasized the external nature of human cognition, and he argued that, "…a complete theory of individual human memory would not be sufficient to understand that which we wish to understand because so much of the memory function takes place outside the individual" (1995b, p. 286). That is to say, in many of the activities that take place in our daily lives, a large proportion of them occur as a combination of processes that take place within individuals and the tools that are used to facilitate these activities. While distributed cognition can also refer to sharing of information between individuals during processing (see Cole & Engström, 1993), the discussion here has been limited to the role that technology can play in sharing the cognitive load.

In a CALL context, the application of ***distributed cognition*** is immediately obvious. For instance, if we look at the process of learning vocabulary, it is evident that there are several ways in which the learning process may be somewhat different than learning through nontechnological means. One example might be that rather than relying on the human memory to keep track of lists of

vocabulary, the learner can have these stored in a place where they are easily accessible and then use them for self-study as they see fit. This particular use is perhaps not very different from what may be done using pen and paper methods, but there are some aspects where the affordances of the technology can be put into play. Learners may be able to input the vocabulary that they wish to learn into software that can automatically create questions for them, be they in context or using other tools. Links to dictionaries that provide the pronunciation of the word, or examples from corpora of actual use can be accessed very easily. Even the reading process itself can be affected by the technology, where pre-installed technology can remove the need to look up unknown vocabulary at all, rather allowing words to be automatically highlighted when touched or clicked on, with a list of information about the word being made available. In this way, the load on the learner is necessarily different from what it would be without the use of technology.

The underlying idea behind ***situated action*** is that people will behave differently depending on the situation and the options available (Suchman, 2006). If one were to imagine a large room with a single green button on the wall, labelled, "Push the green button." In such a situation, there may be people who happily push the button, and others who feel would be reluctant to do so. The reason for this difference is that many people are unlikely to take risks if they do not know what the outcomes of a particular are. Even when faced with the same circumstances, people will decide on rather different outcomes, depending not only on what the outcome is, but also on what the perceived outcome might be. Those who envisage that the green button might link to a door opening would

likely be far less hesitant in pushing the button when compared to those who might imagine something terrible would happen like an explosion. The strength of the perceived outcome is not to be underestimated, as it can play a role in determining actions and behaviours that occur.

The application of this theory to CALL design is also evident. Learners need to be aware of what the outcomes of actions that they are required to undertake will be so that they can make informed decisions about what actions to perform. For example, in the design of CALL applications, if learners do not know the functions of buttons or other features within the application, there is the chance that they will not be used in the way that is intended by the designers of the program. Options need to be clear and logical, and leave as small amount of doubt as possible for the learner so that they feel comfortable about navigating around the environment in the application.

While of course ***SLA theory*** should maintain a central role in the view of technology in second language learning, it is somewhat naïve to underplay the role that technology plays in the learning process. As Levy (2000) argues, "…technology always makes a difference; the technology is never transparent or inconsequential" (p. 190). This suggest that a knowledge of both theories that apply to learning as well as theories that apply to how humans interact with technology are essential in better accounting for the complex relationship between technology and language learning that make up the field of CALL (Stockwell, 2014).

It is all too easy when designing CALL software to take the comfortable route and produce a set of multiple-choice and gap-filling exercises, using a simple authoring tool (Bangs 2011) but CALL is much more than this; Stepp-Greany (2002), for example, describes the creation and management of an environment incorporating a ***constructivist*** and ***whole language*** philosophy or theory. According to ***constructivist theory***, learners are active participants in tasks in which they "construct" new knowledge derived from their prior experience. Learners also assume responsibility for their learning, and the teacher is a facilitator rather than a purveyor of knowledge.

Whole language theory embraces constructivism and postulates that language learning moves from the whole to the part, rather than building sub-skills to lead towards the higher abilities of comprehension, speaking, and writing. It also emphasises that comprehending, speaking, reading, and writing skills are interrelated, reinforcing each other in complex ways. Language acquisition is, therefore, an active process in which the learner focuses on cues and meaning and makes intelligent guesses.

Additional demands are placed upon teachers working in a technological environment incorporating constructivist and whole language theories. The development of teachers' professional skills must include new pedagogical as well as technical and management skills. Regarding the issue of teacher facilitation in such an environment, the teacher has a key role to play, but there could be a conflict between the aim to create an atmosphere for learner

independence and the teacher's natural feelings of responsibility. In order to avoid learners' negative perceptions, Stepp-Greany points out that it is especially important for the teacher to continue to address their needs, especially those of low-ability learners

2.3 Roles of the Computer in language learning and teaching

The role of computer in teaching/learning in general and language learning in particular, varies depending the level and degree at which we employ it in a learning situation. Thus, the role of computer varies in real use from an aid or tool that facilitates learning and reinforces students' understanding – to the fully *tutor* level, in which case a computer acts as a teacher, and thus replaces the human teacher:

- Computer as **tutor** (teacher) for language drills or skill practice.
- Computer as a **tool** for writing, presenting, and researching.
- Computer as a **medium** of global communication.
- Computer as a **tester** that tests students on language already learned.
- Computer as a **data source** that provides students with the information they need to perform a particular task.
- Computer as a **communication facilitator** that allows students to communicate with others in different locations.

Computer as teacher: In the early days of computers and programmed learning, some students sat at a terminal for extended periods following an individualized learning programme. Although we have come a long way from the rather naïve thought, held by some at that time, that the computer could eventually come to replace the teacher, there has been a return to a much more sophisticated kind of computerized teaching using multimedia CD ROMS. In such programmes, students can listen to dialogues or watch video clips. They can click on pictures to call up the names of the objects they see. They can speak into the microphone and immediately hear a recording of what they have said. The program can keep a record of their progress, e.g. the vocabulary learned, and offer remedial help if necessary. Many of these CD ROM programs are offered as complete language courses. They require students to spend hours on their own in front of the computer screen, usually attached to a microphone headset. Another of their serious drawbacks is the fact that in many cases the course content and sequence is fixed. The teacher has no chance to include materials that are of interest and importance to the particular students in his or her class.

As an alternative to large CD ROM packages, there is an increasing number of useful sites on the World Wide Web, where students can get instruction and practice in language skills such as reading, listening and writing (Using computers in language teaching (fis.edu).

Computer as a tool: It is in this area that the computer has been an unequivocal success in language teaching. Spreadsheets, databases, presentation slide generators, concordancers and web page producers all have their place in the

language classroom, particularly in one where the main curricular focus is task-based or project-work. The most important role of the computer in the language classroom might be its use as a writing tool. It has played a significant part in the introduction of the writing process, by allowing students easily to produce multiple drafts of the same piece of work. Students with messy handwriting can now do a piece of work to be proud of, and those with poor spelling skills can, after sufficient training in using the spell check, produce a piece of writing largely free of spelling mistakes (Using computers in language teaching (fis.edu).

When the computer assumes a more ***tutor*** role (Levy, 1997), then the interplay between the learner and the computer will be completely different from what it would be when the computer is used as a ***tool***. As a tutor, in addition to the cognitive aspects, we may also see psychological ones (and perhaps even social ones), with the computer taking on the "presence" of a teacher. The simulated role of the teacher may include that of provider of various activities, feedback, and assistance, all of which may be perceived by learners in different ways (Stockwell, 2014).

Computer as a medium: Increasingly, computer-based writing is not published as words on a printed page. Electronic mail, online documentation, and "electronic encyclopedias" are read directly from a video screen. The computer has thus become a new communications medium, one that facilitates traditional paper-based writing, but allows other forms of writing as well. There are now multimedia messaging and conferencing systems that allow users to send not just

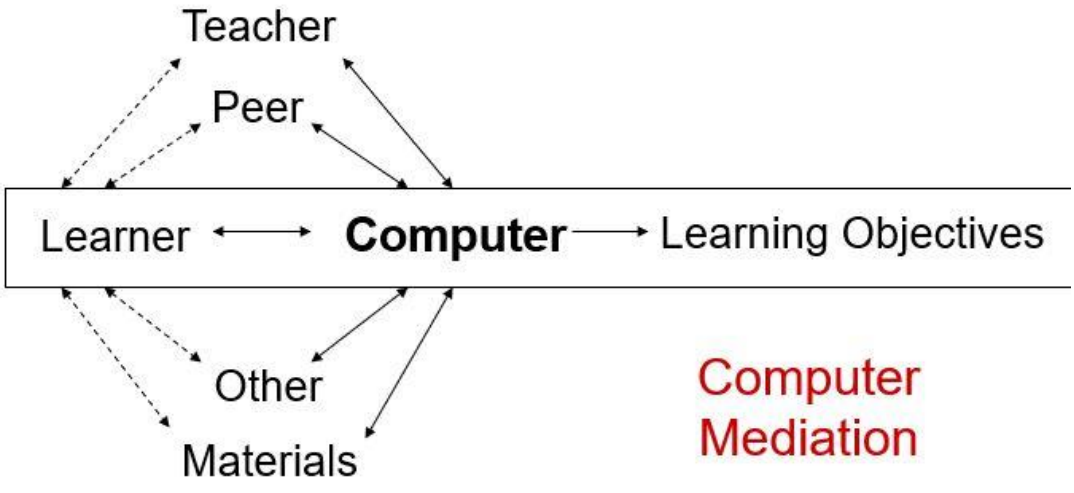
text, but images, graphics, spread sheets, voice and video. These systems are being equipped with a variety of fonts to permit writing in languages such as Arabic, Russian, and Japanese. They can also display text in appropriate orientations, such as right-to-left or down a column. Research (Levy, 1988) is exploring how our current concepts of texts, documents, and media must change as these systems are used, and how to understand the possibilities for enhancing communication and exploring language (Bruce, 1990).

Moreover, the computer can be used to create webs of related information (see Beeman, 1988). Explicit connections between texts allow readers to travel from one document to another or from one place within a document to another. The computer can help a reader to follow trails of cross-reference without losing the original context. Electronic document systems also facilitate co-authoring of text. A group of children can create a common electronic notebook by making their own contributions, viewing and editing one another's items, then linking the items together. Authors and readers can now be given the same set of integrated tools to create, browse through, and develop text. They can move through material created by other people, add their own links and annotations, and merge the material with their own writings. In consequence, the boundaries between author and reader may begin to disappear (Bruce, 1990).

2.4 CALL in Practice

When we put CALL into practice, we need to be aware of the fact that there is no ``one way of using computer in the language class; instead, there are many ways of using and implementing it in the classroom depending on many factors: (1) the

language learning theories, approaches and methodologies guiding instruction (see above); (2) the teaching/learning goals, purposes and objectives; (3) the available computer technologies (i.e. hardware, software, smart devices, applications, facilities, etc.); (4) the level of using the available technologies (i.e. as a simple teaching/learning aid, as a tool, as a resource, or as a tutor); (5) learners' needs, interests, attitudes and learning styles (i.e. audio, visual and kinesthetic learners); (6) the affordances and features of the employed computer technology: i.e. how it can facilitate and improve language learning; (7) teacher's and learners' computer knowledge, competencies and skills; and (8) the context - or learning environment – in which the technology is used.



Levy & Hubbard (2005). "Why call CALL 'CALL'" (editorial). *CALL Journal* 18.3.

Computer technologies offer exciting possibilities for supporting students in language learning once they are wisely and properly used. In particular, they can: (McCloskey & El-Fouly, 2002):

- bring faraway places into the classroom and promote language learning by providing real conversations with other native speakers and English language learners all over the world;
- support direct teaching in the classroom by providing teachers with instructional tools and resources;
- provide rich audio, visual and interactive contexts to promote vocabulary learning and acquisition;
- help learners to develop English literacy through rich experiences with many kinds of reading materials and learning programmes;
- help learners to write by first allowing them to watch as their sentences are composed before them, and later by creating their own writing pieces, making it easy for students to revise and improve their writing skills;
- bring stories to life, read them aloud to students, check their comprehension, helping them to find pronunciations and translations of new words as they read;
- make translations of difficult language more easily available; and
- provide activities for learners that give them feedback, which get progressively more challenging as they learn.

However, technology itself – as argued above – does not teach, or replace good language teachers. It requires competent teachers who possess the basic computer literacy skills, and are able to use technology adequately in order to

reach their goals. Thus, the role of computer technologies is to provide rich support and resources that should help with delivering the target language content. Besides, language teachers who use computers in their teaching will replace those who do not.

Teachers interested in using CALL can get involved in a number of different ways, which can be seen as different teacher roles.

- As ***researchers***: into second language acquisition, human-computer interaction, what works for CALL
- As ***consumers*** of CALL for class use or for homework or other outside student activities
- As ***directors***, helping students find and use supplementary CALL materials or web resources
- As ***managers*** of computer-mediated communication among learners in and out of class
- As ***software or web developers***, either "from scratch" or adding new materials to existing templates
- As ***coaches*** to help students develop software, websites, and general computer literacy
- As ***CALL experts*** for programmes, helping other teachers and administrators with CALL implementations
- As ***CALL professionals***, consulting on external projects, doing software reviews for journals, making conference presentations, writing papers,

interpreting and applying CALL research, and/or providing input to the field at large (https://web.stanford.edu/~efs/callcourse2/CALL1.htm).

In this section, I will highlight the type of computer-based (and also Internet-based) technology along with language aspects and/or skills that can be addressed by them:

1. Vocabulary learning (Word Processing Software, such as Microsoft Word; online videos like those available on YouTube; Google Images; Google Translate; Multimedia programmes; games software).
2. Listening and speaking skills (Multimedia programmes; online YouTube videos; online chat; Virtual Environments & Avatar software, such as *Second Life*; online audio clips, such as those available on soundcloud.com; BBC Learning English video clips; Google Translate & software dictionaries that can be downloaded as mobile phone applications).
3. Composing & writing skills (Word Processing Software, such as Microsoft Word; online Wikis, such as Wikipedia; collaborative writing software and websites, such as Google Documents; Blogs; Facebook and other online social networks; online chat; Multimedia programmes; Virtual Environments, such as Second Life; games software).
4. Reading skills (Word Processing Software, such as Microsoft Word; Facebook and other online social networks; Google Books; Google Images)
5. Communication skills (e-mail; chat; Facebook and other online social networks; Blogs; Skype; Messenger)

A vocabulary flashcard programme or set of online grammar exercises would represent ***tutor*** uses, where the computer in some way has a teaching function. A language learning activity involving social media, an email programme, or a web search engine like Google would represent ***tool*** uses, where the computer has no overt teaching function. A third and increasingly important area is digital resources: texts, audio recordings, and videos or other multimedia objects readily available on the web or through dedicated apps. These provide language content for learners to support reading and listening skills as well as provide a window

into the target language cultures. They can also provide material to support interactive discussions. Online gaming platforms can simultaneously involve language resources and interactivity.

CHAPTER THREE

CALL and Teaching/Learning Language Skills

3.1 Listening Comprehension

Listening is potentially one of the most promising areas for CALL development. This is because multimedia computing has everything standard audio and video have with the addition of a variety of meaning technologies such as text support, hyperlinked glossaries, and even translations. Listening activities typically involve presentations followed by comprehension questions–some also include full or partial dictations. One type of presentation specific to CALL is the *punctuated* presentation, in which the flow is interrupted at intervals to ask questions along the way. This in theory encourages more focused attention and allows a learner to get a check on understanding early in the activity (Rima, 2008).

When the audio-lingual method came to the fore with much focus on listening, the language laboratories became the ideal settings for modelling the English language by providing students with the standard oral language as pronounced by native speakers. Currently, with the vast developments in computer software (CD's and DVD's) and the increasing use of the Web as a main language learning resource, many audio and video clips made by native speakers are available online at the learner's finger tips. This state of affairs has recently facilitated practising the listening skill. As Rost (2009) concludes, these resources have vastly increased the potential input material for language learning, and thus,

selection of the most important input, chunking the input into manageable and useful segments, and developing support material, have become much more possible than before (see also Benson & Voller, 1997). This way, language learners have become able to listen in a self-paced fashion to native speakers and also interact with computers (Abdallah, 2011a).

3.2 Speaking and Oral Communication

Computer technologies have recently enabled new channels for oral communication and self-expression. The Web, for example, has enabled anyone to upload any material online. Some people would be interested in sharing their viewpoints and experiences through social networking websites such as YouTube and Facebook. They can easily record videos for themselves and upload them easily online so that the whole world can watch them. This makes them focussed on what they are saying and doing to get their message across, and consequently, they can improve their speaking ability. Moreover, the chat software enables language learners to communicate synchronously with native speakers. Throughout this communication, they can imitate those native speakers and do their best to speak clearly (Abdallah, 2011a).

Thus, the Web and other new technologies foster speaking by:

- Providing ***channels*** for self-expression;
- Exposing language learners to ***authentic*** audio and video material that they can imitate;
- Enabling them to ***contact native speakers***;
- Enabling them to ***share*** useful ***ideas*** with others;

- Helping them to ***understand*** their ***mistakes*** and ***form good speaking habits***.

3.3 Reading and Writing

While finding and using information on the Web is a useful life skill for second language learners, it also provides opportunities for language learning. As well as skimming and scanning to select texts, they also learn to read a variety of online texts for meaning, some of which are similar in linguistic features to print-based texts, but some of which are specific to the Internet. Additionally, they are challenged to read authentic texts; however, this poses the problems of language level and readability. Even advanced second language readers have difficulty reading these new Internet-specific texts if they have no experience with the Web in their home language (Lipscomb 2002). Teachers need to explicitly teach not only print literacy, but also the digital literacy required to work with and understand the range of new texts on the screen (Murray & McPherson, 2004).

Here are some other ways CALL can be used to support **reading** (Rima, 2008):

- Just using the web: teachers give students tasks that require finding, comprehending and sometimes consolidating information on the web.
- Educational sites with ESL or adult literacy support: CNN's Adult Education Reading Site
- Text reconstruction activities, such as Storyboard, cloze exercises, and jigsaw readings
- Timed or paced readings to develop speed

- Multimedia reading, such as voice enhanced texts and dynamically illustrated material

Technology can be used to change writing instruction in a variety of ways. Computers can aid at places where teacher time and attention are insufficient. They can facilitate the processes of generating ideas and organizing text. Unlike teachers, they can give feedback at any convenient moment. They can comment upon features of written texts. With the aid of a text editor, revision of text is more efficient and rewarding. Computers can increase the time-on-task and can help lessen the teaching load. They can thus create time and opportunity for teacher involvement with essential aspects of writing processes that are beyond the reach of the computer. New technologies can also help to realize a more functional way of teaching writing. Ideals of writing across the curriculum may become more feasible with the support of computers. By means of computer networking, communities of student-writers can be established. Real audiences and meaningful goals can stimulate the development of competency in written communication as well as enhance motivation.

Teaching and learning **writing** nowadays have been fostered by computer and Web-based technologies. In particular, some Web-based facilities have recently enabled new genres of writing and made it possible to share and develop ideas in an infinite fashion. For example, Wikis and Google Documents have enabled '***collaborative writing***' in which case learners collaborate together online to produce something. Through Wikis, language learners can add, edit, and delete the content in a developmental fashion that was not possible before. Similarly,

through Blogs and Facebook, learners have become able to practise '***connective writing***' in which case they can post content and comment on posts made. Thus, the same post may raise a great deal of arguments connected together. This might result in ***threaded discussions*** in which the ideas are developed continuously with no end. Unlike the case in traditional, paper-based writing, students while writing online (whether connectively or collaboratively) write purposefully, sometimes in response to others' accounts, keeping in mind the potential audience. Besides, there is no end for the writing, as the dialogue will continue when others comment on what has been written and post new pieces that stimulate discussion (Abdallah, 2011a).

This state of affairs has provided online spaces to practise writing and develop the different writing skills that learners need in the 21st century. Writing has become a ***collaborative*** activity rather than a ***static*** product that a student initiates and finishes individually with no interference from others. Besides, the way that learners write ***online*** is totally different from the way they write ***on paper***. Writing online enables writers to (Abdallah, 2011a):

- easily correct themselves (self-correction) while they are writing;
- use many options such as checking spelling and grammar to produce accurate pieces;
- exploit multiple resources while writing and copy and paste parts easily and flexibly;
- reflect on what they are writing by employing different techniques such as the 'find' feature that enables them to locate any word/phrase in the text;

- re-order the content they have written and fill in the gaps when necessary;
- view models of good writing that might help them with organising their ideas and developing their writing skills;
- contrast different accounts and summarise what they have written;
- establish an e-mail dialogue with other students who are reading the same content;
- write to a real audience for realistic and communicative purposes;
- view written accounts belonging to different genres and practise multi-genre writing online; and
- make use of the authentic content available online while writing.

3.4 Vocabulary and Grammar

Computers can provide rich, contextual environment for vocabulary learning and consequently allows learners to become active in one-to-one learning environment. Graney and Mokhtari suggested that practice with high frequency vocabulary through CALL does benefit reading. This is because computer as a tool offers great potential to enhance vocabulary instruction; external stimulation, rich graphic, and online rewards. These in turn provide ample opportunities for learners to encounter new words in multiple contexts by allowing them quick access to text and graphic and immediate access to vast information (Mustafa, Sain & Razak, 2012).

Computer technologies in general and the Web in particular have recently facilitated learning English grammar. On the Web, for example, language learners have become able to independently learn, practise, and check many linguistic

forms and idiomatic expressions. In particular, Google and other search engines provide a corpus for language learning. According to Wikipedia, in linguistics, a ***corpus*** (plural corpora) or text corpus is a large and structured set of texts (now usually electronically stored and processed). They are used to do statistical analysis and hypothesis testing, checking occurrences or validating linguistic rules on a specific universe. For example, it has become possible to identify which of the following is English: statistical accurate results *or* accurate statistical results? Similarly, it has become quite easy to identify, for example, the difference between important *for* me and important *to* me (Abdallah, 2011a).

I have just inserted each between two inverted commas in the Google search bar: "statistical accurate results", and "accurate statistical results", respectively. Reviewing the returned results for each, I could conclude that the second is the correct English form that should be used. Of course Google did not tell me directly which one is correct, but instead it searched a large number of texts in its database to identify exact matches for the target structure I gave to it. This database includes millions of English texts in many fields, and therefore, it provides phrases, expressions, and sentences as used by real people in real contexts (Abdallah, 2011a).

Based on this online linguistic corpus, sometimes when confused between two forms both of which sound right, I use another technique to identify which form is grammatically accurate. I simply write both forms separated by *or* in the Google search bar as follows: happier *or* more happy; arrive at *or* arrive in, and so

on. Reviewing the obtained results, one should be able to decide on that (Abdallah, 2011a).

In addition to this online linguistic corpus, the Web has facilitated teaching English grammar in many ways. For example, it provides both teachers and learners with useful videos demonstrating and explaining certain grammatical items. See, for example, this interesting clip on 'present perfect continuous': *http://www.youtube.com/watch?v=2_FU8JJ1N-8* (Abdallah, 2011a).

In the same vein, language learners can employ some Web-based facilities such as Blogs and Wikis for discussing some grammatical rules and idiomatic expressions. Having the same focus, attitudes, and orientation online, they can share with others many ideas, resources, and experiences related to certain structures (Abdallah, 2011a).

CHAPTER FOUR

CALL and the Web

4.1 Introduction and Rationale

Recently, computers in general and the Web in particular, have been gaining ground in terms of use and integration into classrooms. Attention has been recently paid to the Web as a massive development of networked computers. In language learning, the Web has become a widely used resource that enables students to study topics in English independently through tools that make English learning easier after adding a valuable extra dimension to it (Smith & Baber, 2005). It also provides some facilities that enable students to use the English language for real communicative purposes making it a lively language, especially when they learn it as a foreign or second language.

Based on an empirical study I conducted (Abdalah, 2011b), the ***rationale*** that my interviewed participants (i.e. some Egyptian EFL student teachers and teacher educators) provided for using the Web in education in general and in English language learning (ELL) in particular, revolved around the following points:

1. the unique nature of the Web as a multi-purpose, ubiquitous tool that can replace and complement traditional tools;
2. the great opportunities the Web can provide for exposure to language;
3. the powerful existence of the English language on the Web, which should be exploited to the language learners' advantage;

4. the capability of the Web to involve many teaching approaches and/or techniques (e.g., constructivist learning and collaborative learning), and address and cater for many learning/teaching styles and needs;
5. the rich materials and resources the Web can provide, which can help students with developing their basic language skills; and
6. the ability of the Web to resolve students' psychological barriers to learning (e.g., feeling timid or shy).

These points are drastically consistent with some literature in the area. Generally, using the Web for language learning purposes is driven by the premise that the basic language skills (e.g., listening, reading, writing, and communication) can be fostered and developed by a wide range of Web-based tools and facilities including search engines, Wikis, Blogs, e-mail, and discussion boards (Erben et al, 2009; Smith & Baber, 2005; Warschauer et al, 2000).

Teeler and Gray (2000) argue that the Web can be useful in ELT/ELL in many ways. For teacher development, for example, it provides EFL teachers with a large reference library that enables them to access online journals and newsletters presenting innovative ideas in TEFL. This provides opportunities for English teachers all over the world to share ideas and useful practices. Another useful point is that it provides online courses, language content, and activities that can be employed in the English class. Further, Son (2008) argues that the Web provides language teachers with a network-based teaching environment where they can create meaningful tasks and use various materials for language learners tackling language aspects such as vocabulary, grammar, reading, and writing. In addition, using some Web-based applications and facilities including

email, bulletin boards, and chat rooms can promote lively exchanges between native and non-native speakers and foster the scaffolding of ideas and grammar (Toyoda & Harrison, 2002). In such contexts, language learners feel relaxed because they are less monitored by the teacher and their main focus becomes on getting their message across (Erben et al, 2009: p81).

Warschauer (2000) attempted to achieve a holistic, contextualised understanding of online learning in four language and writing classrooms in Hawaii based on a socio-cultural perspective to language learning and technology. His ethnographic study reports significant conclusions: Students did not experience new technologies represented in computers, the Web, and online tools principally as an aid to second language learning; rather, they saw themselves as developing new literacy skills in a new medium of critical importance for their lives. Further, it was not as if language existed independently of the computer and the Web which served as vehicles to help them to learn this autonomous language. Rather, learning to read, write, and communicate in the electronic medium was seen as valuable in its own right. Thus, the Web was seen as a new medium of literacy, not just as a language learning aid. Moreover, the study revealed that the existence of the Internet provides the potential for purposeful and powerful use of on-line communication in language and writing classes.

One of the important language aspects that the Web can enhance is teaching/learning writing composition. Perceiving the Web as a motivational tool, Trokeloshvili and Jost (1997) develop a rationale explaining the important

role the Web plays in teaching EFL writing composition. They base their argument on the premise that any Web-based instruction should consider both students' needs and the teacher's goals, and that successful writing springs out from motivation. For EFL students, the Web provides attractive features (e.g., pictures, colours, and videos) that motivate them to write. Besides, students need things like writing practice, authentic audience, peer evaluation, feedback, and creativity, all of which can be facilitated by the Web.

4.2 Web-Based Facilities

Elsewhere (Abdallah, 2011b), I defined 'Web-based facilities' as:

> *All those available Web-based applications, features, resources, and services that the Web provides for education in general and for ELT/ELL in particular, and which can open many spaces for learning and language practice.*

Examples of these facilities include: e-mail and e-groups, chat, search engines (e.g., Google), Wikis, Blogs, and social networking tools and websites (e.g., YouTube, Facebook, and Delicious). In what follows, I will try to give an account on examples of these facilities and how they can foster English language learning.

4.2.1 E-mail and language learning

Generally, Web-based e-mail is the most widely-used free Internet application; nowadays, you can hardly find a person without an e-mail address, no matter how limited his/her technical knowledge is. E-mail can be useful in global communication that goes beyond the boundaries of the classroom and even the homeland, and as a tool for developing language skills. For example, e-mail can be used by Egyptian students for communication with other Arab students to take

from them what suits their local contexts in Egypt. Literature indicates that e-mail is extremely useful for language learning/acquisition and inter-cultural communication in EFL learning (Mekheimer, 2005). E-mail as a very influential tool for improving and fostering students' writing and composition skills. The editing tools that the service provides within the ***compose*** box, such as grammar/spell-checkers and dictionaries, are very important in this respect. E-mail, in this way, can be used for teaching many language aspects such as reading, writing, grammar, vocabulary, and spelling...E-mail can simply foster communicative abilities, and even typing skills (Abdallah, 2011a).

E-mail is a direct, straightforward, and more self-centred; it has effects on social behaviours such as collaboration and motivation as well as some meta-cognitive aspects central to the learning process, especially in writing. It enriches functions of easy editing, storing, and manipulating. Pedagogically, e-mail is capable of bringing traditionally peripheral persons into the instructional mainstream; it offers users chances to develop positive attitudes (Abdallah, 2011a).

A good advantage of e-mail is that it allows for the exchange of different types of files (e.g., Word, PDF, audio, and video files) that can be attached to e-mail messages. Also, e-mail can be used effectively by students for sharing/exchanging experience with their fellow students and teachers in any place in the world, something missing in traditional classes. E-mail also enhances the students' writing skills; it gives the students chance to socialise and get to know other

students' cultures; it allows for collaborative work that can help to tackle some difficulties with understanding basic concepts of the course; and students can get help from each other while they are at home and co-operate in planning for teaching, for example (Abdallah, 2011a).

4.2.2 Chat and language learning

According to Sharma and Barret (2007), chat belongs to a type of computer-mediated communication (CMC) called ***synchronous communication***, while e-mail belongs the other type commonly known as ***asynchronous communication***. 'Synchronous communication' refers to communication that takes place in real time, such as chat and ordinary telephone calls. Asynchronous communication, on the other hand, refers to communication that takes place at different times. Hence, sending an e-mail and replying to it is asynchronous. Each mode has its own advantages and uses within a language learning context (Abdallah, 2011a).

Text chat is a synchronous form that involves people communicating through writing to each other using their computer keyboards as the mode of input. One of the commonest types of text chat is chatting with others in a chat room. This tool becomes extremely useful when language learners communicate with native speakers. It enables them to learn language as it is used in authentic contexts and learn vocabulary and idiomatic expressions from those native speakers. It also allows them to practise their English for realistic communicative purposes which might not be (properly) provided in their regular English classes (Abdallah, 2011a).

Chat can be easily done by downloading a chat software (e.g., Yahoo Messenger, MSN Messenger, and Skype). The best way to know more about these applications is to go to their official websites: Yahoo Messenger at: *http://messenger.yahoo.com*; MSN Messenger at: *http://uk.msn.com/iat/us_gb.aspx*; and Skype at: *http://www.skype.com*

If you already have an e-mail account on these websites, you will use the same ID and password to access chat through the software. After you add people to your contact list, you will be able to see who are online and offline. Nowadays with Yahoo you do not even need to download the Messenger software if you are using Yahoo Mail. While you are still within your e-mail account, you can use text chat only. This is a new service that has been recently added. The great thing which I noticed about this service is that from your e-mail you can also text someone already in your address book even if s/he is using the Messenger!

Voice chat is a very good service that these applications provide for free. Egyptian students are quite familiar with this service since most families now use it as a very cheap alternative to normal international telephone calls to contact their relatives abroad once they are able to afford a normal Pc and an Internet connection. Moreover, the benefit of this service becomes so great when it comes to language learning. Listening to native speakers and speaking to them help language learners with modelling their pronunciation and using English in direct conversation. On the psychological level, this might increase their motivation to learn, especially because the Egyptian social environment does not provide them

with opportunities to practise their English language. All of us might agree that language is practice. Thus, it is possible that anyone's language, including English specialists, might deteriorate after sometime of idleness and non-use (Abdallah, 2011a).

I do not want to provide much technical details here as I am sure that many readers and practitioners nowadays are experts in Chat. However, newbie[1] (i.e. those who are new to chat) can make use of their colleagues' experience. Even better, they can learn that independently using the "Help" menu, online tutorials, and/or video demonstrations available on YouTube, which will guide them step-by-step into the whole process. Now, let's move to this important question: **How *can chat be useful for language learning?*** (Abdallah, 2011a)

Sharma and Barrett (2007) argue that chat can offer learners a chance to develop their language abilities. For instance, during text chat, they are using the keyboard in real time, and thus concentrating on fluency and communication. When text chat conversation partners do not understand what a learner has written, they will tell them, forcing the writer to rephrase his/her message. This 'negotiating of meaning' can arguably work towards improving learners' language abilities. However, if there is no teacher, it is quite likely that learners will continue to replicate their mistakes or not take advantage of the learning opportunity provided by the activity. One of the main benefits offered by chatting

[1] 'Newbie' is a slang term for a newcomer to an Internet activity, for example online gaming. Thus, it refers to someone new to something; A new user or participant; someone who is extremely new and inexperienced (to a game or activity) (see also Google Definitions).

is the fact that some learners who are normally shy in a face-to-face class may actually become less shy, and hence might go ahead with expressing themselves in a different way through a different medium. The use of chat outside the classroom may help to make the group get together, and could have a socially cohesive purpose. You (as a teacher) can offer to be in a chat forum at a certain time. Anyone in the class who wishes to log in and communicate can do so (Abdallah, 2011a).

Further, it is possible to print out the complete chat conversation. This gives you the chance to analyse the learners' input and give feedback accordingly. Remember that in Chat software like Yahoo! Messenger, which I have been using for more than 10 years now, there is an option that enables one to save all exchanged texts in the archive or history, but always remember to enable this option in the software settings!

4.2.3 Google and locating data

At present, Google is on top of the most widely used search engines. Its relevance ranking is frequently cited as the best among all search engines; one is likely to find useful sites within the first ten matches rather than going through hundreds of irrelevant matches. Other search engines have recently moved to incorporate link analysis as part of their ranking algorithm, but they have not matched Google's success yet (Moore, 2003: p9). In addition, some features exist that make it very friendly to Internet users, such as its development of what is known as 'artificial intelligence', a feature that makes a search engine smart enough to

understand what one is looking for, helping him/her to locate it (Rosencrance, 2003).

Throughout personal experience, this has been evident in some suggestions automatically made by Google such as “Do you mean…?” when a misspelled word is inserted, as well as another suggestion to remove the quotes (" ") when there are no results returned to a quoted query. Besides, in addition to being an efficient search engine, Google presents many services such as Google Documents (for writing collaboratively), Google Images, Calendar, Google Books (for reviewing books online), Google Translation, Google Scholar (for obtaining academic articles in different subjects), Google Video and You Tube (for video sharing), and Google Earth. Google has become a default search engine for locating needed information, and hence the present common use of Google as a verb when people say "Google it" instead of "search for it online"!

Locating information is a crucial stage in online reading. Mastering the skills and strategies needed for locating needed information is a prerequisite for Web users. In this respect, the ever-increasing availability of information requires the development of effective information-seeking strategies, and hence, there are many skills and strategies needed to deal successfully with search engines which usually turn up too many results (Henry, 2006: pp615-16). Besides, because search engines differ in their search algorithms and features, it is important to understand how several popular ones work and know when to use them (Eagleton & Dobler, 2007: p118). That is why many experts strongly suggest that users should always check the "HELP" menu within each search engine to

understand how it works! Consequently, students, in particular, should be guided and trained in developing strategies for identifying Web resources, choosing search tools, selecting the appropriate keywords, and selectively picking up the most relevant search results. This, in fact, will save much effort and time for our students who always report being lost on the Web.

In this context, Henry (2006: p618) suggests a framework called SEARCH for the essential search skills needed for reading and locating information on the Web. ***SEARCH*** stands for six steps:

1. **S**et a purpose for searching;
2. **E**mploy effective search strategies;
3. **A**nalyse search engine results;
4. **R**ead critically and synthesize information;
5. **C**ite your sources;
6. **H**ow successful was your search? (Evaluating your search).

How can you search the Web to locate data?

Very simple! You have many techniques to use:

- Just insert one word in the search bar if the topic is very general (e.g., honesty, policy, globalisation, etc.)
- Sometimes you need to use Boolean operators to narrow down your search. For example, if you want to search for globalisation as related to Egypt, you should insert both keywords (globalisation and Egypt) separated by a Boolean (logical) operator (i.e. AND, OR, NOT) which can

also take the following signs, respectively (+, OR, -). So, you should insert: globalisation +Egypt or globalisation AND Egypt.

- You might need the search engine to do the opposite (i.e. display ALL possible results EXCEPT Egypt). In this case, you will insert: globalisation NOT Egypt (or globalisation -Egypt).
- Sometimes you need to locate the EXACT phrase. For example, sometimes I do this when I need to locate any resource in which an exact sentence or phrase was mentioned as it is. Try "to be or not to be", for example...It's likely that all returned results will be related to Shakespeare's Hamlet as a text or literary articles citing this quotation from Hamlet.
- You can even narrow down your search more and more by using the 'advanced search' option adding more complications to better refine your results (i.e. you can determine: the number of results that should be displayed per page; the language that you want the results to be displayed in; the file format that you need, etc.)

CHAPTER FIVE

CALL and Online Language Learning Approaches

5.1 Network-Based Language Teaching (NBLT)

This approach can be regarded as an extension or a variety of CALL. But due to the unprecedented influence of the Internet or the Web on our life in general, and on language learning in particular, it sounds reasonable to me to distinguish NBLT as a separate approach. Shetzer and Warschauer (2000) coined the term 'NBLT' to describe their electronic literacy approach to language teaching and learning (see also Chapter 1). NBLT refers specifically to the pedagogical use of computers connected in either local or global networks, allowing one-to-one, one-to-many, and many-to-many communication. This approach highlights the learning opportunities that language learners are provided with when computers are connected with each other, both locally and globally. The Web enables great opportunities for communication which are vital within second and foreign language learning situations.

According to this approach, language learning is conceived from a ***socio-cultural perspective*** where the learning process is mediated by the Web. It assumes the existence of an interdependent/transactional relationship between the Web and language. This relationship has become so strong that it is hard to identify both as two isolated identities. Thus, it is hard nowadays to isolate language learning

from the Web as a technological reality that needs some skills and strategies that are quite relevant to the English language.

5.2 Web-Mediated Language Learning (WMLL)

Elsewhere (Abdallah, 2011b), I argued that Web-mediated language learning refers to this type of learning that employs the Web (and its tools and facilities) as a means of instruction and language practice. Rosen (1998: p1) argues that the Web is merely a tool like a chalkboard; tools do not teach, but when effectively implemented, they assist in the learning process. The degree to which a learning tool has been successful draws heavily on how much it helped students. Educational forms of using the Web vary in terms of the degree to which it is used (Aggarwal, 2000: p19; Warschauer et al, 2000), and hence distinctions sometimes exist between terms like Web-*based* learning and Web-*assisted* learning. This is consistent with the three metaphors of computer-based educational activities posited by Crook (1994): a tutorial metaphor, a construction metaphor, and a toolbox metaphor.

Web-based learning (WBL) is a prominent label used in literature to refer to online learning employing the Web as the main medium of learning and instruction (McCormack & Jones, 1998; Wesson, 2002; You, 2004). Whatever the definition of WBL is, it must refer to that learning which takes place mainly through the Web as an electronic environment that includes some features and facilities, which enable many affordances that help learners to learn effectively on an individual and constructive basis.

However, I prefer the label 'Web-mediated learning' (WML) that can encompass any form in which the Web can be used to facilitate learning. As far as language learning is concerned, the term can refer to any Web-associated learning forms that highlight the human component in learning. In other words, under the umbrella of Web-mediated learning, while the Web is addressed as a main tool that mediates language learning, the main focus is still on the human outcome rather than on the Web in itself as a technology. Besides, no matter how frequently the Web is used in the learning process, its mediational function, in socio-cultural terms, is highlighted. This way, users are linked with the machine from a social, interactive standpoint, rather than from a behaviouristic, input-output standpoint (see also Nardi, 1996). According to Erben et al (2009), this mediation is what helps English language learners to interact easily and reconstruct their socio-cultural, linguistic, and professional discursive practices and promote their socialisation into the target knowledge communities.

As a learning/teaching tool, the Web has its own affordances and constraints. Hence, Bates (1995) argues that newer technologies are not necessarily better (or worse) for teaching/learning than older technologies. They are just different, and their choice should be driven by real learning needs, not just by novelty. The context of learning and students' needs, in my opinion, rationalise the use of new technologies making it clear whether they are used merely as additional luxury to cope with modern advancements, or in response to some realistic needs or persistent problems imposed by the learning context. Hence, it is unfair to disregard the affordances the Web holds, and, at the same time, it is unrealistic to

claim that it is a magical solution or panacea to all deficiencies experienced within formal learning settings.

The affordances and/or advantages of the Web can be evident if contrasted with the shortcomings of using traditional, face-to-face instruction only (Hijazi, 2003). The general benefits of Web-mediated learning when compared to traditional training are represented in being: self-paced, highly interactive, and able to increase retention rates, reduce travelling costs, and cater for individual differences (Kruse, 2004; Stennes, 2008).

On the other hand, some constraints and limitations exist that make the Web still unable to totally replace face-to-face instruction, and which give rise to blended learning. Reviewing literature (e.g., McKimm et al, 2003; Stennes, 2008), I classify them into psychological/physical and academic/professional constraints. Some psychological constraints were identified by McKimm et al (2003) such as students' feelings of isolation in a WBL environment compared with traditional instruction, and frustrations experienced by learners because of poor equipment. In the same vein, Stennes (2008) argues that because it is cold and impersonal, WBL does not replicate or replace the alive experience of a real classroom, or what Blanchard (2004: p2) refers to as the "caring and engaging teacher" who offers effective opportunities for learning.

However, the educational use of the Web has provided learners and educators with a wide range of new experience and learning environments, not possible in formal education (Khan, 1997). Within an electronic environment, social

interactions unconstrained by limitations of space and time have been enabled and fostered to encourage collaborative learning among students (Cecez-Kecmanovic & Webb, 2000: p308). Hence, Brown (2000) conceives the learning environment fostered by the Web as a 'learning ecology', an open, complex and adaptive system comprising dynamic and interdependent elements, the power of which, as Richardson (2002) suggests, lies in its diversity and its ability to offer a learner-centred experience in which students access resources and features that address their specific needs. Within this environment, theories of social and active learning along with collaborative online activities that promote communication and interaction among students can be fully employed (Sudweeks & Simoff, 2000; Tiffin & Rajasingham, 1995).

The WBL environment differs from the traditional learning environment requiring many new skills. In this regard, Clarke (2004) identifies two main types of online skills: e-learning skills and communication skills. E-learning skills are required for independent, personal interaction with the Web and include time management, acceptance of responsibility, planning, self-assessment, problem solving, coping with stress, reflection, and research skills. Communication skills are required for online interaction with other people, whether synchronously or asynchronously. They involve e-mail communication styles, skills for managing e-groups and newsgroups, and skills for participating in threaded discussions.

E-learning skills include an important aspect called ‘netiquette’ (Internet Etiquette) that students need to understand. It refers to the accepted and proper

online behaviour, especially when online interaction with other people takes place (Dreamcore, 2008). Netiquette involves some core principles and standard practices, such as using a proper non-offensive language, avoiding flaming[2], using emoticons to convey real intentions, not annoying other people with long, detailed messages, respecting other people's privacy, viewpoints and feelings, forgiving others' mistakes, and exchanging useful expert knowledge (Shea, 1996; Teeler & Gray, 2000: p9).

Using the Web in higher education[3] has become a widespread practice nowadays. The main reason for this, as Ryan et al (2000: p4) note, is the current pressures imposed upon higher education institutions, especially those related to the globalisation of higher education. Such pressures have been driving these institutions to rethink and improve their educational practices through using ICTs, especially the Web, as the prime means of course delivery. This has become a standard practice in some UK universities that offer courses and/or programmes in two modes: the on-campus mode and the online mode (e.g., Exeter Graduate School of Education, 2009; Oxford Online Courses, 2008; the Open University, 2008).

This new practice is also most evident in the emergence of what is known as 'virtual learning' or 'virtual universities' (e.g., Virtual University, 2007), which act as global learning communities that provide higher education programmes

[2] 'Flaming' refers to sharp criticism or dry comments that distress or annoy other users.

[3] 'Higher education' here refers to universities, high colleges and teacher education institutions.

through ICTs. Their main goal is to provide access to that part of the population not able to attend a physical campus for reasons such as distance, which prevents students from attending regular classes, and need for flexibility, as some students need the flexibility to study at home whenever convenient (Ryan et al, 2000: pp1-5).

5.3 Connectivism: Connectivist Language Learning

Connectivism is a quite new learning theory that proposes the existent of networks (i.e. nodes and links) that frame human knowledge acquisition (Abdallah, 2018). It views learning as the process of creating connections and expanding or increasing network complexity (Siemens, 2005). What is interesting about this theory is that it connects or combines relevant elements of many learning theories to create a powerful theoretical construct for learning in the digital age (AlDahdouh, 2015). It recognises the internal processes of learning, but focuses more on the external world, especially digital networks, that continuously alters the person's knowledge and changes how they understand and manipulate content (Siemens, 2005). Thus, *connectivism* presents a model of learning that acknowledges the tectonic shifts in society where learning is no longer an internal, individualistic activity. How people work and function is altered when new tools are utilized (Abdallah, 2018).

English language learning has been greatly influenced by new web generations that have brought many interactive applications. These applications have been enabling free writing, meaningful participation and sharing linguistic knowledge

with the whole world. In other words, the message can be easily conveyed to others, and immediate feedback on production has become possible.

In line with *connectivism*, mobile technologies have revolutionized the ways social networks can be used. On smart phones, for example, learners can easily access many applications (versions designed for tablets and smart phones). In this regard, Wright (2010: p. 10) argues that because Twitter was accessible via mobile phones, tweets could be sent when students were "walking in corridors," "in cars at the end of the teaching day" or "during lunch breaks". Thus, they can use Twitter to share their personal reflections and write flexibly as if they are using a Pc.

Thus, language learners are able to enhance their language skills due to the different avenues that new social media have created. Social media – as proved by many previous studies (e.g. Borau, et al., 2009; Cheng, 2012; Henderson, Snyder & Beale, 2013; Ahmed, 2015) - provides the learner with the possibility of participating in genuine, immediate and relevant online conversations, and practicing the target language while supported by experienced teachers and external audience.

Language acquisition – as indicated by research – is socially constructed and interactive by nature (Reinhardt & Zander, 2011; McClanahan, 2014). That is why the term *Social Media Language Learning* (SMLL) has appeared to express interactive relationships between social media channels and language learning processes. In this sense, language learners are able to extend English practice beyond classroom boundaries. In their study, Henderson, Snyder and Beale

(2013) conclude that social media - especially when used for collaborative purposes - is best utilised when: (a) it does not repeat ongoing practices, but offer something new; (b) strategies are there to support students' collaborative work; and (c) the tasks are appropriate.

Moreover, social media extends learning through offering new opportunities such as: (1) contact with outside experts; (2) purposeful interactions among students in different locations; (3) a means to enhance learners' participation; (4) a means for extending time; and (5) a facility for timely feedback from teachers and peers.

CHAPTER SIX

Wikis & Wikipedia

6.1 Introduction

> *"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." -- Jimmy Wales, Wikipedia founder (Wales, 2004)*

A Wiki is a website that allows the easy creation and editing of any number of interlinked web pages via a Web browser using a simplified mark-up language or a text editor (see Wikipedia definition at: *http://en.wikipedia.org/wiki/Wiki*). The most famous Wiki that has been gaining ground for more than 10 years is Wikipedia, the free encyclopaedia (*http://en.wikipedia.org*). Wikis are typically powered by Wiki software and are often used to create collaborative websites, to power community websites, for personal note taking, in corporate intranets, and in knowledge management systems.

Wiki is a tool or technology connected with the Web 2.0 or Read/Write technology. "Wiki" is a word for "fast" in Hawaiian slang, but it has been backronymed[4] by some to "What I Know Is" (Richardson, 2009). Erben et al. (2009) defines Wiki as "a collaborative website that many people can work on or

[4] 'Backronym' is a word that is either not an acronym, but is taken to be one and for which a full form is invented by back-formation, or is an acronym and for which an alternative full form is invented by back-formation (Source: en.wiktionary.org/wiki/backronym)

edit". The idea was originally conceptualised by Ward Cunningham in 1994. The computer programme allows users to access the original postings and add or change content. The original intention of such shared writing was to allow as many participants to contribute and make changes, therefore resulting in a webpage that could be constantly updated. It is the product of collective community involvement.

Nowadays, things have become even easier as the creation and management of a Wiki can be easily done free online with no need to any software. A famous website that provides this service is Google.

The environment enabled by a Wiki allows for collaborative writing in which case all the people all over the world have equal opportunities to add, edit, or delete any content. The most famous Wiki is Wikipedia, the free encyclopaedia that was created by people for people all over the world! Therefore, it sounds very reasonable to see how Wiki is defined on Wikipedia (Erben et al, 2009; Richardson, 2009).

Wikis may exist to serve a specific purpose, and in such cases, users use their editorial rights to remove material that is considered "off topic". Such is the case of the collaborative encyclopaedia *Wikipedia* in which anyone can publish anything. I tried to publish something on it on ‘Web-based new literacies’. I managed to do that and the content stayed for a while, but, later on, the editorial team and many members suggested that my page could be merged with the

broader page titled, 'new literacies'. Soon they merged it, and as a result, my independent page disappeared completely; every time I bring it back using 'history' and the 'undo' options, someone deletes it stating the reason for deletion. I am narrating this experience for two reasons: First, I want to say that publishing on *Wikipedia* is a totally monitored process, and thus, though anyone can easily publish anything, only the content that the world community sees as accurate, appropriate, and valuable will stay.

Second, I want to draw the attention to the complexity of writing, editing, and uploading content on Wikipedia. For me, compared with other flexible and easy-going websites, the process was so complicated that it needed some specific skills/techniques. To understand how to create internal links with other pages and list references, for example, I had to use a strange technique; I opened an already published page on Wikipedia and clicked on 'edit' as if I was editing it just to see how the content should look like in this mode. Meanwhile, I opened the same page in another window, but in the normal published mode to allow for comparison. This way, I could understand how the content was written by others, and subsequently I could do the same to my new page. I definitely think that the technology and editing features used in Wikipedia should be updated to make things smoother and easier for users.

6.2 Educational uses of Wikis in language learning

From a learning perspective, participation in a Wiki is a good example of Vygotsky's Zone of Proximal Development or ZPD in action as participants are socially mediated by others in a problem-solving situation. Vygotsky (1978)

highlighted the fact that the ZPD need not be a relationship between a novice and expert, but can be the relationship between like-level peers, who mediate each other. The English language learners' use of a Wiki fits nicely within this concept because, as they work together, their writing community is formed and the mediational process is enriched. In the end, knowledge is shared and collectively constructed. To facilitate ideas exchange and knowledge sharing, many Wikis offer an option called “Discussion” or “Comments” in which students can discuss issues with each other, give reasons for changes, and disagree with what someone else has written (Achterman, 2006).

Generally, Richardson (2009) summarises all those things that can be done through Wiki as follows: If you have some knowledge about your favourite hobby, for example, that isn't on Wikipedia, **add** it. If you read something you think isn't correct, **fix** it. If you don't like the way one of the entries is written, **erase** it. If there is something big just happen in the news that is history making, **start a new entry**. Drawing on these functions of adding, editing, deleting, and starting, there are many uses inside the classroom:

- Teachers can set up a wiki for use as the class dictionary;
- Learners can use class Wiki to insert vocabulary and a content-area grammar Wiki;
- Language learners can use Wikis to develop their online writing/editing skills;
- A language teacher can use a class Wiki as basis for quizzes, homework assignments, and so forth.

6.3 Wikipedia

Wikipedia has become a major resource that most people nowadays refer to when they want to know about anything. It is a world-wide encyclopaedia, and hence the name Wikipedia which captures both terms: Wiki and Encyclopaedia. Personally, I use at as a start whenever I want to investigate anything new to me. Based on empirical data resulting from some semi-structured interviews that I conducted with some EFL teacher educators and student teachers at Assiut University College of Education, I reached the following conclusions about Wikis in general and Wikipedia in particular:

Many participants were familiar with Wikis, especially Wikipedia which they were using to get definitions and written texts about a variety of topics. Generally, Wikis can inform students of all what they need to know about and help them with developing some research skills. They allow everyone to participate and keep track of all participations, and also update the participants via e-mail of every change. In this environment, students and language learners can motivate one another. In the same vein, a teacher educator gave details on how he was using Wikipedia in his career; as a practising translator, he was using it for getting the new technical or specialised vocabulary, and thus, building his schemata in the target language when faced with a new topic before starting translation. In his viewpoint, what distinguishes Wikis, with specific reference to Wikipedia, is that they are both "a rich resource of information, and a platform for sharing knowledge": a rich resource in the sense that they "cover a vast array of topics providing basic information" that anyone needs to know about anything

new, and a platform on which "people all over the world can share what they know in all walks of life".

A student teacher regarded Wikipedia as very useful because in it, he could find "complete subjects and clarifying pictures and images". Anything related to this subject is simply written and easily stated. For him, what distinguishes Wikipedia is that its content is usually true and that it addresses many fields and is available in 250 languages. Similarly, another student teacher looked upon it as "the first standard tool" because in it, he can easily find any single piece of information, even if it is simple, and can get more than one page providing detailed information about the topic written in a standard language.

However, the recently increasing use of Wikipedia (*http://www.wikipedia.org*) for research and study purposes has raised many arguments. Throughout my discussions with many participants, I could come out with some conclusions in this regard. Academically, it is not advised to cite anything from Wikipedia, any other Wiki, or any other non-academic resources like Blogs and e-groups. As with any source, especially one of unknown authorship, one should be wary and independently verify the accuracy of Wikipedia information, if possible. For many purposes, but particularly in academia, Wikipedia may not be an acceptable source; indeed, some professors and teachers may reject Wikipedia-sourced material completely. This is especially true when it is used without corroboration. However, much of the content on Wikipedia is itself referenced, so an alternative is to cite the reliable source rather than the article itself. Though

the information included in Wikipedia can be academically accurate, we cannot cite from it simply because anyone can edit the written content. Then, how can Wikipedia be useful to students and scholars? Based on personal experiences of some participants, it is evident for them that Wikipedia is one of the best resources to resort to. Some teacher educators use it as a starting point whenever there is anything new that they would like to know about.

Suppose, for example, that one has just seen a term like Computer-Assisted Language Learning (CALL) for the first time. If new to the field, one should first seek to have a simple idea about the topic (i.e. definition, meaning, significance, characteristics, etc.) before going through more specialised academic resources, such as articles, books, and online journals. Additionally, one may want to know who the main authors and/or pioneers in the field are just to Google them to know to what extent they are famous and recognised in the field, to get their contact details so as to contact them, or just to have a look at their homepages to see their publications. One last thing might be to identify the most important references, books, and/or resources in the field to refer to after finishing this useful, dictionary-like account written on Wikipedia. These factors make Wikis in general and Wikipedia in particular important for EFL student teachers in the course of their academic study at colleges of education.

CHAPTER SEVEN

WebQuest Strategy

7.1 Introduction

The dominance of the Web in education and language learning has motivated many scholars, researchers and language learning to develop educational models that effectively employ the Web (and its facilities) to foster students' understanding, acquisition and learning. In other words, the increasing use of the Web as a main information resource has motivated researchers to create instructional models that employ the Web to improve students' learning and enquiry skills. A prominent Web-based model that was devised for helping teachers to incorporate Web-based resources into classroom practices is the WebQuest model.

The use of this model was empirically investigated in many studies (e.g., In science education, Gaskill et al, 2006 conducted two experiments in an American rural high-school setting to compare learning using WebQuests versus conventional instruction; Ikpeze and Boyd, 2007 used WebQuests for facilitating thoughtful literacy for 6 middle-class European American students in an elementary school in a small middle-income sub-urban neighbourhood in the US; and Mekheimer, 2005 who investigated the effect of using WebQuests on developing essay writing skills for EFL student teachers within the Egyptian

context). They identified WebQuest as ideal for teaching students how to use the Web effectively and access resources to answer specific questions or solve problems. According to these studies, tasks based on the model helped students to improve their learning and motivation (Abdallah, 2011b).

WebQuest was developed in the early 1995's at San Diego State University by Bernie Dodge with Tom March. Dodge (1997) defines a WebQuest as *"an inquiry-oriented lesson format in which most or all the information that learners work with come from resources on the Internet*". He also presented the concept of two types of WebQuests: short-term and long-term ones. The major differences between them are: the instructional goals and the duration of WebQuest.

An instructional goal of a short-term WebQuest is related to knowledge acquisition and integration, whereas an instructional goal of a long-term WebQuest is related to extending and refining knowledge. A short-term WebQuest is designed to be completed in 1-3 class periods, while a long-term one typically takes between 1-4 weeks in a classroom setting.

March (2003. 43) also defines a WebQuest as

> *a scaffolded learning structure that uses links to essential resources on the World Wide Web and an authentic task to motivate students' investigation of a central, open-ended question, development of individual expertise and participation in a final group process that attempts to transform newly acquired information into a more sophisticated understanding. The best WebQuests do this in a way that inspires students to see richer thematic relationships, facilitate a contribution to the real world of learning and reflect on their own metacognitive processes*".

Laborda (2009, 8) indicates that a WebQuest's design is based on a constructivist philosophy, and it promotes cooperative learning and scaffolding of instruction. It allows students to construct their knowledge of the language through exploring structured web resources on their own.

7.2 Importance and Reasons for Using WebQuest

Using WebQuest strategy is significantly important because it can help to create the distinguished teacher of the future. For students, it might help with: (1) improving student' motivation to learning; (2) developing thinking skills and problem solving; (3) encouraging cooperative learning; and (4) supporting their language learning.

There are many reasons for using WebQuest as a learning strategy since it: (1) creates effective learning; (2) is an attractive strategy of learning; (3) accommodates students' needs;(4) is an organized source;(5) saves time and effort;(6) saves time and effort; and (7) promotes problem solving skills.

According to Hockly (2008) there are some reasons for using WebQuest in the language classroom, they: (1) integrate between the internet and language classroom; (2) afford cooperative learning;(3) motivate learners; (4) encourage critical thinking skills;(5) can be used as a linguistic tool. While according to March (1998, 12), WebQuest (1) increases student 'motivation. Students face an authentic task and work with real resources; (2) develops students´ thinking skills; and (3) fosters cooperative learning.

In a nutshell, and according to Halat (2008), the following points represent the strengths of WebQuest: (1) being "an alternative teaching technique that enhances students' motivation in class; (2) serving as an alternative assessment tool of student's learning; gives teachers an idea of the students' knowledge acquisition degree of and implementation of the knowledge; (3) providing teachers with an opportunity to see and assess students' ability in using technology for learning; (4) enhancing teachers' creativity in thinking and writing, such as finding interesting and funny stories or scenarios and combining these with math or other subjects; (5) enhancing teachers' higher-order thinking skills, such as finding a topic-related websites and examining and selecting professional, well-prepared, and reliable websites; (6) requiring students to be active learners; and (7) allowing students to use the Internet as a vital tool (Abdelghafar, 2018).

There are many criteria and standards that would guide effective use of WebQuest; Dodge (2001) identifies five: (1) defining specific sites; (2) organizing or harmonizing your learners and resources; (3) Using medium;(4) Stimulating learners' abilities to think; and (5) Scaffolding high expectations.

7.3 WebQuest Structure

Many WebQuests developed by many teachers in different subject areas are available online (Young & Wilson, 2002). Thus, teachers may choose to incorporate ones developed by others, or develop their own as a way to get their students reasoning at higher levels. In spite of the many forms and variations a

WebQuest might take, generally the structure of a WebQuest always encompasses (see Figure 1 below) five main sections (Dudeney, 2003; Smith & Barber, 2005):

1) *Introduction*. At this stage, the teacher should set the scene for his/her WebQuest by arousing learners' curiosity and motivation to do the task. S/he should also introduce the overall theme of the WebQuest that involves giving background information on the topic and, in language learning contexts, introducing key vocabulary and/or concepts that learners should understand in order to complete the task.
2) *Task*. This section explains clearly and precisely what the learners should do as they work their way through the WebQuest. The task should be highly motivating, interesting, and firmly anchored in a real-life situation. At this stage, students should know the required output (e.g., a presentation, a report, or a summary).
3) *Resources*. Usually these resources are Web-based and are normally given to learners in advance to use during the task.
4) *Process*. This is the stage where the teacher outlines what the learners will go through to accomplish the task, including the resources they will use, and guides them through a set of activities using some pre-defined Web-based resources. In a language-based WebQuest, the process stage may introduce (or recycle) lexical areas or grammatical points essential to the task. It will usually have one product or more that learners should eventually present.
5) *Conclusion*. This is the evaluation stage that can involve learners in self-evaluation, comparing and contrasting what they have produced with other

learners and giving feedback on what they feel they have learned or achieved. It should bring closure and encourage reflection (Abdallah, 2011b).

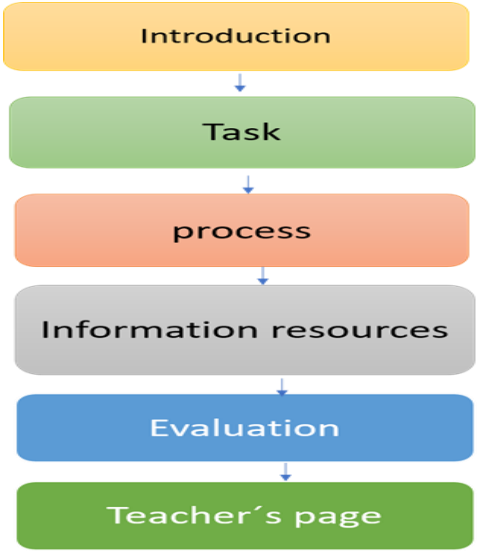


Figure 1: WebQuest Components

Table 1: Teacher's and learners' roles in WebQuest stages

Components	***Teacher's role***	***Learners' role***
Introduction	Designing and formulating the task based on curricular goals and students' prior knowledge. Reviewing and filtering Internet sources.	
Task	Presenting and explaining the task to students using students' prior knowledge	
Process	Providing procedural guidance and cognitive tools to complete the task	Collaboratively and/or cooperatively negotiating the processes to complete the task
Information resources	Placing reviewed and filtered Internet sources onto a webpage or in print form	Use procedural guidance and cognitive tools to synthesize information from reviewed and filtered Internet sources
Evaluation	Designs and uses a rubric to assess students' completed task	Collaboratively and/or cooperatively using a rubric to

		complete and self-assess task requirements
Conclusion	Reflects on completed task in reference to curricular goals, students' prior knowledge, and their newly constructed knowledge and plans for further activities	Presenting their completed tasks. Reflecting on the significance of the completed task in reference to curricular goals, their prior knowledge, and their newly constructed knowledge
Teacher's page	Designing WebQuests for other lessons.	Asking some questions or sending any comments

CHAPTER EIGHT

Social Networking & Language Learning

8.1 Introduction & Rationale

Social networking has become a normal everyday practice done by teachers and students alike. Facebook, in particular, has become very common and widely used in Egypt. Many teaching/learning approaches nowadays (e.g. CALL, mobile-assisted language learning or MALL, and learning with i-pad) draw on these new literacy practices. It has become too difficult and unrealistic nowadays for teachers to disregard the new ways or means that learners are currently using for learning and communication.

Generally, employing the Web within language learning contexts is driven by the assertion that the fundamental language skills can be empowered by a group of Web-based and social networking tools such as Wikis, Blogs, and Facebook. The Web provides a strong intrinsic motivation for the English language learning (ELL), and helps learners with developing essential literacy skills. These social networking websites: (1) support collaborative learning; (2) engage individuals in critical thinking; and (3) enhance communication and writing skills through activating members work in personalized environments.

Facebook, in particular, can: (1) resolve the problem of insufficiency of time inside the classroom; (2) help everyone to show up and participate; (3) help students to get rid of the tension and pressure associated with face-to-face

communication, and this will eventually improve actual performance; (4) help students to achieve better understanding by uploading and downloading supporting materials; and (5) provide language learners in particular with authentic (real) situations.

According to Philips, et al. (2011), educators need to direct learners into using social media in general, and Facebook with much caution and care. In this regard, they suggest 7 ways:

1. help develop and follow your school's policy about Facebook;
2. encourage students to follow Facebook's guidelines;
3. stay up to date about safety and privacy settings on Facebook;
4. promote good citizenship in the digital world;
5. use Facebook's pages and groups features to communicate with students and parents;
6. embrace the digital, social, mobile, and "always-on" learning styles of 21st Century students; and
7. use Facebook as a professional development resource.

8.2 How can Facebook Facilitate Language Learning?

The proliferation of digital, social and mobile technologies has created a culture in which youth participate more in creating and sharing content, profoundly changing the way students communicate, interact, and learn. In many cases students spend as much (or more) time online in an informal learning

environment--interacting with peers and receiving feedback--than they do with their teachers in the traditional classroom (Philips, et al. 2011).

The main point here is that Facebook - and other social networking tools – has become a fundamental component of learners' daily digital practices. Therefore, educators have to take this reality into their advantage. In other words, they can integrate Facebook into the teaching-learning process since learners are already familiar with it as a means of communication in the digital world.

In this regard, Philips et al. (2011) report that in their conversations with teachers, many indicated that they were looking for ways to better understand students' emerging digital learning styles. Educators have also expressed that they were interested in learning how to integrate Facebook into their lesson plans to enrich students' educational experiences, to increase the relevance of the content, and to encourage students to collaborate effectively with their peers.

Facebook can provide students with the opportunity to effectively present their ideas, lead online discussions, and collaborate. In addition, Facebook can help you, as an educator, to tap into the digital learning styles of your students. For example, it can facilitate student-to-student collaboration and provide innovative ways for you to involve students in your subject matter. Moreover, Facebook can be a powerful tool to help you connect with your colleagues, share educational content, and enhance communication among teachers, parents and students.

Facebook, in particular, plays a very important role in the educational field, as we can use it as an instructional tool to facilitate the learning processes. We will try to show some of the benefits of using Facebook such as (see also Abdallah, 2013):

1- Unlike traditional frontal teaching that is limited to a specific time and place, Facebook is a ubiquitous communication tool that can be used at any time - whether day or night for teaching/learning purposes; through it teachers can communicate and follow-up with their students, and thus might cover parts or sections that they have not covered inside the classroom (Abdallah, 2013).

2- It can improve many of the learner's different language skills, such as pronunciation (through interacting with native speakers); researching skills; and writing skills (e.g. collaborative, connective, and reflective writing).

3- It gives shy learners, who cannot participate inside the classroom, the chance to talk, vent their ideas, and express themselves without fear or embarrassment.

4- It increases learners' motivation by urging them to participate through Facebook discussions; thus, they would feel motivated to share ideas, develop arguments, and build-up knowledge and competency.

5- Students can benefit from the different facilities and language learning resources which are found on Facebook, such as videos, presentations, pictures, chatting, educational pages and groups, and other many useful links shared by other users of similar interests.

6- Facebook, as a comprehensive, flexible, and multi-purpose application, is supportive and attractive to language learners; there, they can see things differently, and thus learn in an attractive, relaxing environment, which is totally different from the traditional classroom environment.

8.3 Working as a Community of Practice on Facebook

A Community of Practice (CoP) stands for a group of people who share a common concern or goal, a set of problems, or an interest in a specific topic or area; they come together to fulfil both individual and group goals.

Forming a CoP is a very vital practice at present, especially after becoming so easily done thanks to web 2.0 and social networking tools. CoP is important because it: (1) facilitates access to resources; (2) enhances learners' participation; (3) opens for them new horizons that widen their scope and deepen their understanding; (4) reinforces dialogue and communication; (5) supports collaborative learning; and (6) engages them in meaningful practices (Abdallah, 2013).

In particular, CoP facilitates an interactive language learning environment where community members can learning effectively. For example, it can reinforce *task-based learning* through the online administration of meaningful language tasks to all group members. Also, it can act as online platform for practicing language skills. Further, CoP is considered a further extension of the physical classroom environment, where learners can take further ideas and theoretical content.

8.4 How can Facebook be Useful to Language Teachers?

For language teachers, Facebook can be useful in many ways:

1- Teachers can recommend good resources for learners' studied topics, and suggest extra links for further knowledge and study; they can help their learners to overcome their mistakes and errors.

2- Facebook is a very good way for communication among teachers themselves, especially if continuous professional development (CPD). It helps them to exchange ideas through the online interest groups and language learning communities.

3- Through Facebook, teachers can follow-up with their students, and subsequently, evaluate learners' progress through online assignments and tasks.

4- Teachers can share with learners any remaining educational content of the previous lectures that they could not cover or explain thoroughly inside the classroom.

5- Facebook helps teachers to identify the best teaching practices and know the latest and different strategies used in language teaching, and which can improve the learning process.

6- Teachers can integrate Facebook into their lesson plans and teaching schedules in order to develop learners' understanding and improve their study skills.

7- Through Facebook, teachers can deal with all kinds of learners (e.g. gifted students, those with learning disabilities, and those with special needs), and meet their individual differences and language learning needs.

8- Facebook can provide teachers with innovative ways for dealing with students' disruptive behaviour and their communication challenges.
9- Language teachers can improve learners' listening and pronunciation skills through online video chats, and writing skills through written chat.

8.5 How can Facebook be Useful to Language Learners?

As for language learners, Facebook can be useful in many ways:

1- Learners can share ideas with specialists and obtain feedback from them;
2- Facebook design promotes social interchange and cross-cultural exchange between participants, thereby increasing collaboration between students working on the same activities and tasks;
3- Students can use the *peer correction* technique through employing Facebook as a publishing vehicle to express and share ideas, viewpoints as well as reflections about others' writings;
4- Students can develop their pronunciation and actual use of language through chatting with native speakers;
5- Shy students will find a great chance to participate and express themselves;
6- Gifted students will find a great opportunity to fulfil their needs through extra tasks and assignments;
7- Students can benefit from a wide range of online materials and resources;
8- Students can participate in the ongoing content-building conversations over the web.

CHAPTER NINE

Virtual Language Learning Environment

By Dr Rehab A. El-Sayed

9.1 Introduction

The implementation of innovative educational practices is a response to the social needs for educational change. Such needs emerge from the massive request and access to high education, the necessity to increase competitiveness and to take into account new approaches to learning. The implementation of technology in educational environments and in the learning process poses a real challenge for the training institutions undertaking it. One of these new technologies is virtual learning environment (**VLE**). VLEs have shown a great success in many fields, especially education (Barajas & Owen, 2000).

9.2 VLE definition

There are many definitions of VLE that are identified according to the different uses of it in learning. Following are some of these definitions. Barajas and Owen (2000, 39-40) stated that "VLEs have to be thought of as learning environments. The 'learning' aspect drives the activity; virtuality rather refers to the technology that is brought in to support learning. Thus, VLEs will mean (any combination of distant and face-to-face interaction, where some kind of time and space virtuality is presented)". In these types of environments, participants are experiencing new ways of learning and communicating with peers and teachers by organizing the

learning environment in a different way, based on several technological configurations.

The US-Based Learning Circuits Magazine defined VLE as "a wide set of approaches, applications and processes, such as Web-based learning, computer-based learning, virtual classrooms and digital collaboration. It includes the delivery of content via internet, intranet, extranet, LAN, WAN, audio-and videotape, satellite broadcast, interactive TV, CD-Rom, and more".

The English Wikipedia defines VLE as "an education system based on the Web that models conventional real-world education by integrating a set of equivalent virtual concepts for tests, homework, classes, classrooms, and the like, and perhaps even museums and other external academic resources. It normally uses Web 2.0(1) tools for 2-way interaction, and includes a content management system".

As these definitions show, VLE includes many approaches, techniques and methods of teaching that enrich face-to-face learning.

(1) The term "Web 2.0" is associated with web applications that facilitate participatory information sharing, interoperability, user-centered design, and collaboration on the World Wide Web. A Web 2.0 site allows users to interact and collaborate with each other in a social media dialogue as creators (prosumers) of user-generated content in a virtual community, in contrast to websites where users (consumers) are limited to the passive viewing of content that was created for them. Examples of Web 2.0 include social networking sites, blogs, wikis, video sharing sites, hosted services, web applications, mashups and folksonomies.

9.3 The Effectiveness of VLE

It wouldn't be honest to claim that VLEs will improve the quality of education or reduce the costs of educational systems. These environments have some potential effects. However, the past tells us that it is very difficult to set up the conditions that turn potential into actual effects. The issue is not to prove the effects but to understand them. Dillenbourg et al (2002, 10-16) listed the following issues:

a- Media have no intrinsic effectiveness, only affordances.
b- Social interactions
c- Virtual places implicitly convey the communication contract.
d- Virtual interactions do not have to imitate face-to-face communication in order to be effective.
e- 'Non-Verbal' communication
f- Building virtual communities
g- Unlimited access to information
h- Collaborative learning is not a recipe.
i- «Does it work» is what matters.
j- Virtual space is a space for innovation

a- Media have no intrinsic effectiveness, only affordances

Studies show a slight advantage for computers especially when considering the time for learning. VLE effectiveness is bound to the pedagogical context of use:

the pedagogical scenario in which the courseware is integrated, the degree of teacher involvement, the time frame, the technical infrastructure, and so forth.

b- Social interactions

The first obvious opportunity of VLEs is that they support social interaction in many ways: synchronous versus asynchronous, text-based versus audio or video, one-to-one versus one-to-many…etc. This affordance too cannot be gained unless the teacher explores different new communication functionalities that are effective in VLEs.

c- Virtual places implicitly convey the communication contract

The social context in which interactions occur has a strong impact on the way students interact, sometimes even stronger than technological features. Virtual environments offer designers ways to specify implicitly this context to the students, namely the communication contract. Setting up implicit communication rules is one of the social affordances of virtual places.

d- Virtual interactions do not have to imitate face-to-face communication in order to be effective

Virtual space designers do not necessarily try to imitate physical space, the look for creating new affordances. Groups of users and tools form distributed cognitive systems and they self-organize to adapt to the context. Experienced users have developed ways to cope with the differences between VLEs and face-to-face interactions. The challenge is to understand these opportunities and integrate them where they are pedagogically relevant.

e- 'Non-verbal' communication

f- The specificity of VLEs is that, beyond direct text/voice/video messages, users may communicate in other ways: exchanging objects, moving in the space. These are often called 'non-verbal' communication.

g- Building virtual communities

The major interest of virtual learning communities may not be to create learners communities, but to make communities for teachers. Teaching has always been an individual work: teachers do not collaborate a lot, they rarely attend to each other lectures, do not much exchange teaching materials and so forth. The challenge is to turn teaching into a collective performance. Some very large running experiments specifically foster the creation of communities for teacher professional development. Involving directors, researchers, inspectors and parents are interesting affordances of virtual learning communities.

h- Unlimited access to information

The WEB provides learners and teachers with access to an amount of information that has never been accessible before and is developing at an exponential rate. The effectiveness depends upon the way the designer exploits this opportunity. S/he should consider setting up a page gathering the information considered as correct, relevant for the course, morally acceptable…etc. or providing unfiltered access to the WEB but teaching students how to search for information on the WEB, training them to be critical.

i- Collaborative learning is not a recipe

VLEs contain obvious affordances for collaborative learning. Collaborative learning is effective if the group members engage in rich interactions: when they argue about the meaning of terms and representations, when they shift roles… A

teacher can regulate the collaborative process to favour the emergence of these types of interactions in two ways: structuring collaboration or regulating interactions.

j- «Does it work» is what matters

The designers of VLEs should consider the fact that teachers always look forward to using the software which is easy to install and to use, and that is bug free. They also ask questions such as: Does it work with my students? Do the students 'play the game', i.e. feel engaged in the scenario and have a sustained interest along the software use? How long will I be able to keep the floor with this software, a few hours or a few months?

k- Virtual space is a space for innovation

For teachers, a virtual space is an open space; a space where they can try new approaches. The teachers, who worked part-time for the Virtual University, changed their teaching style even outside Internet, including more collaborative learning practices, viewing themselves less as knowledge providers and more as facilitators.

9.4 Requirements of Implementing VLEs

Undertaking of VLE development within institutions of higher learning requires (Barajas & Owen, 2000, 40):

a- the attention of a variety of institutional actors. These range from developers to administrators and institutional factors. Designing and using VLEs require fundamental changes in the role of academic and technical staff. Academics have to acquire or develop new knowledge and skills to become teaching materials designers,

tutors, facilitators, etc. They have to cope with essential changes in the conception of time and space introduced by these technologies.

b- a trans-disciplinary approach engaging a multiplicity of disciplines ranging from subject matter specialists to instructional designers to system administrators

c- a careful consideration for the integration of socio-cultural elements.

9.5 Implementing VLE

In trying to implement VLEs in teaching, the teacher should answer some questions related to three general phases (Barajas & Owen, 2000, 45):

1st Phase: Teaching and learning issues

- What are the new strategies and methods applied for teaching in VLEs?
- What are the new "soft" and "hard" skills tutors/lecturers need in multidimensional and intercultural VLEs?
- What are the best assessment methods in VLEs?
- How do we manage lecturers' overload in VLE?
- Can we think on the emergency of a new conception of learning materials in VLE?

2nd Phase: Institutional issues

- Is there a need for additional valid research so as to establish which elements/issues are to be considered justifiable reasons for avoiding VLEs and how to overcome them easily?

- Should the relevant national bodies engage in efforts to overcome and lessen resistance?
- What are the factors that led institutions to consider using VLE?
- What type of networks is being formed for VLE?
- What type of institutional change is being sought?
- What is the management approach to institutional change?

3rd Phase: Cross-cultural issues

- Which methodologies should be used in order to overcome the language barrier problem?
- Which methodologies should be used to enhance the intercultural communication among tutors and learners?
- Which special measures should be taken when fixing the calendar and/or the syllabus of the programs?

9.6 Importance and advantages of using VLE

One model of learning that can be facilitated using VLE is the Cognitive Apprenticeship model; learning based on the way that apprentices learn from experienced skilled workers. Here, learning is "situated" in the contexts of culture and learning environment by involving the learner in realistic activities which involve collaboration with their peers and tutors, designed to assist them in adoption the specific culture and acquiring the tools needed to discuss and reflect upon practice (Stiles, 2000, 6).

VLE provides learners with opportunities to determine the suitable time and pace for getting the learning experience. Learners can also access the learning material and communicate with classmates and instructors through networked resources and a computer based interface, rather than face-to-face in a classroom .It is feasible to expand the traditional model of classroom-based instruction to include the variety of resources available in VLEs.

In VLEs technology is used to deliver learning material and to facilitate many-to-many communication among distributed participants. Text, hypertext, graphics, streaming audio and video, computer animations and simulations, embedded tests, and dynamic content are some examples of delivery technology. Electronic mail, online threaded discussion boards, synchronous chat, and desktop videoconferencing are some examples of communication technology.

VLEs rely on information and communication technology to create the venue of knowledge transfer and learning progress .Unlike computer micro worlds, VLEs are open systems that allow for communication and interaction among the participants. Unlike traditional classroom education, VLEs support student-to-student and student-to-instructor connectivity throughout the learning experience in a technology-mediated setting.

A certain degree of learner control can be built into traditional classroom instruction, but VLEs have the potential to provide for greater personalization of instruction and a much higher degree of learner control than traditional

classroom education. Traditional learning environments do allow students, when outside of the classroom, to control the pace and sequence of material, and the time and place of their study. VLEs, however, provide this flexibility during instruction as well (Piccoli et al, 2001, 404).

9.7 Implementing VLEs in Teacher Training:

Implementing teaching in VLEs needs comprehension in technological and organizational aspects, and new skills in applying relevant didactical methods. Future teachers must be introduced to technology and its applications in the educational area in order to be enabled to measure the whole range of possibilities available for organizing educational and teaching in this virtual context. Even when a sharing of work takes place within a team of specialists, a minimum competence of knowing what the others do is required. Some soft skills like working in inter-disciplinary teams become more important too in this context and are to be considered as well in teacher training (Barajas & Owen, 2000, 43).

Student teachers are particularly competent to comment on their learning within online context. Clarke (2009, 521), cited Laughran (1999, 19), asserted the primacy of student experience and the need for teachers at all levels to be attuned to student experiences. Student teachers are perhaps a singularly well-informed and perceptive student group whose interest and enthusiasm for education can serve to improve the quality of their opinions. Today's student teachers are more Information and Communication Technology (ICT) literate than ever before, possessing, as they do, a literacy which has been developed

through a mixture of school-based learning and through extensive leisure use of ICT. It is ironic that, as technology proliferates; multiple digital divides between teachers, students and pupils are exacerbated. One key divide is aptly described by Prensky (2001, 38) as that between digital natives (pupils) and digital immigrants (tutors/teachers):

The single biggest problem facing education today is that our Digital Immigrant instructor, who speak an outdated language (that of the pre-digital age), are struggling to teach a population that speaks an entirely new language.

Osler (2005) advocated the use of online environments to support teacher development across the three phases of early teacher education (Initial Teacher Education ITE, Induction and Early Professional Development EPD) and, indeed, beyond. In addition, a recent Department of Education Circular highlights the need for schools to explore "opportunities for teachers and leaders to undertake some elements of their continued professional learning online (DE, 2005, 3).

E-learning appears to stand in marked contrast to the standards/competences approach to teacher education which is used worldwide (Beyer, 2002). The competences/ standards approach is critiqued in a recent article by Yandell and Turvey (2007, 534) as having an abstracting, decontextualising effect, and as representing a narrowing conception of the teachers' role that involves an attempt to measure a uniformity of outcomes.

E-mail and computer conferencing have been shown to improve students' "ICT skills, promote reflective thinking and encourage debate (Clarke, 2009, 522). Lambe and Clarke (2003, 352) suggest that the use of a VLE can help not only to improve competence and confidence in the use of ICT, but also foster opportunities for high quality professional dialogue and be an important means of conversation and social interaction between the student group.

Clarke (2009, 522) asserted that the extensive use of a computer conferencing system encouraged collaboration, and could support and enhance critical reflective practice. Dutt-Donner and Powers (2000) found that using VLE led to high levels of participation and supported the development of community of caring individuals, where thoughtful interaction could take place. Barnett (2001) found evidence that "networking technologies" can reduce teacher isolation and support sharing, foster reflection on practice, influence teaching practice, and support the formation of communities of practice.

Most use of the asynchronous discussion areas – online forums are for three main purposes that are explained below (Clarke, 2009, 523):

1- Reflective writing and meta-reflection

The asynchronous conferencing tools of VLEs are used throughout teaching practice as a venue for reflective writing. Students are asked to reflect upon various aspects of their practice and to share a brief written reflection in the online discussion forums.

The researcher used the reflective writing as an assessment tool, the meta-reflective e-learning profile in which students are required to revisit all of their online postings and write (c.500 words) about what they have learned online and what they have taught others. The profile is clearly not a perfect assessment tool. In particular, it is summative and individual in nature, at a time when formative and peer assessment is being encouraged also. Thus, the researcher asked student teachers to reflect on their peers' performance and write about it online.

2- Sharing resources

The asynchronous discussion areas also serve as publishing tools, allowing student teachers (and tutors) to upload attachments. The VLE offers the potential for these resources to be retained and shared with members of future cohorts. This approach has resonance with communal constructivism (Holmes & Gardner, 2006) which is explained using two helpful metaphors. In traditional learning models students pass through a pipe leaving no trace of their passing (so there is no year-on-year transfer of knowledge between student cohorts), whilst a communal constructivist environment is analogous to "a river which enriches its flood plain with silt each time it floods". Each cohort of students contributes to the communal knowledge in a permanent form, leaving their own imprint on the course by producing communally generated resources which are shared with all future cohorts. They argue that students should become publishers and not just consumers.

It is clear that VLEs are very much capable of hosting learning within the students' discussion areas which can be used to build up libraries of resources (lesson plans, worksheets, web quests etc.). Holmes et al (2001) also highlight how, within VLE's framework, students cooperate rather than compete.

3- The 'Hidden Curriculum' of VLE– the non– compulsory online 'Coffee Bars'

In VLE students can also be provided with discussion areas which are designated as a non-compulsory part of the VLE course. It seems that these discussions are often put to good use. Clarke (2009, 524) asserted that "these discussions were an important source of serendipitous informal support between course members". The basic premise of the hidden curriculum is that learners learn much more from it than they do from the content of the formal curriculum.

The nature of VLEs is characterized by four values. They are (Clarke, 2009, 525):

a) Technologically enabled rather than technologically constrained;
b) Learning and learner-centred rather than teaching and teacher-centred;
c) Permeable rather than isolated and,
d) Alive.

Although effectiveness of using the internet and its applications has been proved by many studies (ex. Erben et al, 2009; Richardson, 2009; Abdallah, 2011b), only few teacher educators in the Egyptian universities are ready to incorporate literacies based on new technologies into EFL teacher education (England, 2007). Besides, educational technology courses delivered in the pre-service EFL teacher

education programs at Egyptian colleges of education still focus on general computer skills without practically relating them to ELL (Abdallah, 2011b).

Investigating the current Egyptian context of preparing EFL teachers, Abdel Latif (2009), Ibrahim (2009) and Abdallah (2011b) found that fixed instruction that drives students to memorize facts and learn by heart is still dominant. This is critical within a teacher education context that should target professional development and lifelong learning more than the mere memorization of specific contents.

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