



College of Social Sciences and International Studies

Graduate School of Education

**Web-Based New Literacies and EFL Curriculum Design in
Teacher Education: A Design Study for Expanding EFL
Student Teachers' Language-Related Literacy Practices in
an Egyptian Pre-service Teacher Education Programme**

Volume 1 of 2

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Mahmoud Abdallah

Signature:

Dedication

I dedicate this work to

-My wife, Gehan, and the three shining stars in my life, my sons: Hazem, Nouredin, and Yousef, the new-born baby who came to life on Friday, 28-1-2011, a historical and memorable day in the Egyptian history...

-Bassuni, my elder brother and first English-language teacher...

-The honourable young men who made the Egyptian revolution of the 25th of January 2011, and the martyrs (al-shohadaa) who sacrificed their blood and souls for the sake of our beloved Egypt ...Their chaste blood that was shed in Al-Tahrir Square in the centre of Cairo caused the re-birth of a new Egypt that we have been dreaming of for a quite long time. This is a very small thing dedicated to them:

<http://www.youtube.com/watch?v=oNQYcsokQVA>

-The souls of: my father (who passed away in October 2007, just a few days after my arrival in the UK); and my mother (who passed away in August 1998), both of whom always wished to see me in the best academic position...and

-To all the English language and Internet lovers who share with me this attitude:

"Every morning, and as soon as I get up and open my eyes to realise that I'm still alive, I thank God that I was born to witness the age of the Internet, and then go to my beloved laptop to continue a dialogue that never ceases!" Mahmoud Abdallah 2010 www.mabdallah.bravehost.com and msayed40@yahoo.com

ABSTRACT

With the dominance of the Web in education and English language learning, new literacies have emerged. This thesis is motivated by the assumption that these literacies need to be integrated into the Egyptian pre-service EFL teacher education programmes so that EFL student teachers can cope with the new reality of language teaching/learning. Therefore, the main objective of the present study is to develop a theoretical understanding of the relationship between Web-based new literacies and the teaching of TESOL in a way that supports the possibility of expanding Egyptian pre-service EFL student teachers' language-related literacy practices by integrating some Web-based new literacies into their education programme, with specific reference to the context of Assiut University College of Education (AUCOE). This requires accomplishing minor objectives represented in: (1) identifying the range of those Web-based new literacies that Egyptian EFL student teachers need in this ICT-dominated age; (2) identifying those Web-based facilities beneficial to them, and why and how they can be beneficial; and (3) generating framework for EFL curriculum design based on both literature and empirical data.

To accomplish this, a design-based research (DBR) methodology drawing on a pragmatic epistemology is developed and employed as the main research paradigm informing this design study. Thus, the research design involves a flexible three-stage research framework: (1) the preliminary phase, which acts as a theoretical and empirical foundation for the whole study, and informs a preliminary design framework; it involves reviewing relevant literature and obtaining empirical data through documentary analysis (100 documents), online questionnaire (n=50), and semi-structured interviews (n=19); (2) the prototyping phase that involves two iterations (36 participants in the first iteration, and 30 in the second) conducted in the Egyptian context to test the proposed design framework. Each iteration acts as a micro-cycle of the whole design study, and thus involves its own objectives, learning design, research methodology and procedures (in line with the main DBR methodology), and results; (3) the assessment/reflective phase which, based on the prototyping phase results, presents a final design framework for expanding EFL student teachers' language-related literacy

practices. This has implications for the EFL curriculum design process within the Egyptian context in general, and AUCOE in particular.

Results indicate that throughout the two iterations, it has become evident that the process of expanding EFL student teachers' language-related literacy practices by integrating some Web-based new literacies into the AUCOE pre-service programme is quite feasible once some design principles are considered. Some significant conclusions and educational implications are provided, along with some main contributions to knowledge in TESOL/TEFL, language-learning theory, research methodology, and educational practice as far as the Egyptian context of pre-service EFL teacher education is concerned.

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ABBREVIATIONS

AUCOE	Assiut University College of Education (Egypt)
CALL	Computer-Assisted Language Learning
CoP	Community of Practice
DBR	Design-Based Research
EFL	English as a Foreign Language
EFL Student Teachers	Those university undergraduate students enrolled in the English section at the Egyptian colleges of education who are also known as ‘prospective teachers of English’
ELL	English Language Learning
ELT	English Language Teaching
ICTs	Information and Communication Technologies
L1	First Language
L2	Second Language
TE	Teacher Education
TEFL	Teaching English as a Foreign Language
TESOL	Teaching English to Speakers of Other Languages
WBL	Web-Based Learning
WML	Web-Mediated Learning
WMLL	Web-Mediated Language Learning
ZPD	Zone of Proximal Development (a Vygotskian concept)

Introduction: Setting the Scene for the Design Study

CHAPTER ONE: EXPLORING THE CONTEXT AND IDENTIFYING THE PROBLEM

This Chapter sets the scene for the whole study by introducing a rationale for conducting the study; a background on the Egyptian context that the study targets; an identification of the problem of the study, and its objectives, questions, and significance; a definition of the main research terms used; and finally an outline of the whole thesis.

1.1 Introduction and Rationale

Globally speaking, current advances in modern technologies have created a need for reconceptualising old notions of literacy centred on the ability to read, write, and comprehend printed texts, especially within language learning contexts (Buckingham, 2007; Pahl & Rowsell, 2005). The Internet or the Web, in particular, calls for new forms of reading, writing, and communication (Leu et al, 2005: p2) in this information age which, as Jewitt (2006: p13) notes, marks a shift from page to screen. More specifically, the development of Web 2.0, a new generation of the Web that has been enabling new functions and possibilities for learning such as social networking, easy publishing online, and collaborative construction of knowledge (Alexander, 2006; Parker & Chao, 2007), imposes a new reality for language learning and practice.

Today, literate individuals should know how to gather, analyse, and use information resources to solve problems and accomplish certain goals (Kasper, 2000). This has become crucial within English language learning (ELL) contexts where learners are required to use English for a variety of communicative and functional purposes. As language learners are increasingly involved in electronic environments, they need new strategies because the ability to communicate through information resources necessitates new literacy skills (Karchmer, 2001). As a result, education and language learning demand a major restructuring based on these new literacies and curricula (Kellner, 2002) to understand the new competencies required by the Web (especially Web 2.0 technologies) along with a wide range of functional, cultural, critical, and technological aspects deemed vital for language learning.

As far as language teacher education is concerned, new literacies have become of great concern in educational institutions (Kellner, 2002; Leu et al, 2004). Internationally, there is a growing trend towards equipping prospective teachers in general and language teachers in particular with competencies to cope with new developments and innovations that necessitate expanding the concept of literacy itself to encompass current changes. This necessitates always reviewing and updating teacher education programmes themselves to be able to develop strategies that help prospective teachers to understand the new forms of literacy and be prepared to use technology for their professional growth and teach in ways that connect to students' lives (Kellner, 2002).

At the onset of their undergraduate preparation programme, EFL student teachers experience a transitional stage that involves some psychological tensions caused by new academic requirements (Roberts, 1998: p72). This applies to the Egyptian context, especially AUCOE, where EFL student teachers spend sometime struggling with new academic demands such as independent study, using the library, and coming to grips with the English language as both the content and means of instruction (Undergraduate Study, 2008). They should master the required knowledge base that involves some general educational competencies, lifelong learning skills, and specific academic skills related to English and literacy (Freeman, 1983; Johnston & Goettsch, 2000; Richards, 1998; Shulman, 1987). The systematic pre-service EFL teacher education programmes provided by universities are, more than anytime before, necessary and important. However, their components need to be updated to address the new literacy practices related to both the Web and EFL, which may foster lifelong learning skills and strategies necessary for student teachers' continuous professional development.

Nowadays, teachers in the field face many challenges related to technology and literacy. They are challenged not only to integrate technology into traditional aspects of literacy instruction (e.g., book reading), but also to engage students in emerging new literacies (e.g., online reading and writing) (Leu et al, 2005), which can be regarded as natural extensions of the traditional linguistic aspects. Research points to the pressing need for a strategic, organised instruction dealing with these new literacies along with a meaningful, effective integration of the Web in the learning context (e.g., Asselin & Moayeri, 2008; Coiro & Dobler, 2007).

Teacher education is the means through which new literacies can be integrated (Cornu, 1997: p321). As far as EFL teacher education is concerned, Cavanaugh (2005), Kamhi-

Stein (2000), and McPherson et al (2007: p24) argue that EFL teacher education programmes should be updated to encompass new technological concepts and literacy practices, which have become essential for surviving in a digital networked environment, and which should therefore be part of any pre-service teacher education programme (Leu, 2000c; Loethe, 1997). However, how best to help future teachers to learn about the Web and other ICTs has constantly been a challenge for teacher educators (Zhao, 2003), especially when it comes to TEFL or TESOL. Consequently, a revision of the programme contents, through redesigning its curricula to address such new aspects, is needed.

The Web and other new technologies should be perceived, not merely as products, but also as literacy tools (Coiro et al, 2008) and means towards improving educational practices. Hence, Van Braak (2001) proposes ‘technical innovativeness’ as a key component in influencing how individuals would enhance their practices based on technology use.

1.2 Context of the Study

The aim of this section is to introduce the Egyptian context as the main context of the study, shedding light on some of its historical, socio-political, cultural, and educational aspects. A special focus will be on literacy, higher education and teacher preparation, especially as far as Assiut University and its College of Education as the narrower context are concerned. In addition, a focus will be on new technologies and how they have been recently embraced by the Egyptian educational system in general and higher education institutions in particular.

Clarification of these contextual aspects may add a realistic dimension to the study. One cannot assume that teacher education is the same in all countries; rather, it is a component that is strongly rooted in the broader socio-political and cultural context and attached to the country profile itself. Therefore, EFL teacher education at Assiut University College of Education (AUCOE) is closely attached to (and influenced by) the general teacher education programme there, which in turn, is attached to the College of Education which constitutes a unit of Assiut University. Assiut University, even if independent at a certain level, is attached to the Egyptian Ministry of Higher Education, which should conform to the main policies and agendas formulated for the whole country at the top of a long administrative hierarchy.

Roberts (1998) cautions against generalising from contexts of language teacher education in the USA and the UK (and Europe in general) to other contexts. Highlighting the significant role of the socio-political context, he argues that despite the existence of some valuable guidelines for language teacher education provided by research, it is never value-free because it takes place in a political and ethical context that determines many things such as the questions to be asked. In this sense, EFL teacher education cannot be tackled as a separate, isolated component or context based on the fact that teacher education involves some common international goals and standards.

1.2.1 Egypt as a country

The Arab Republic of Egypt (ARE) is an African, Arab country that lies in the northeastern part of Africa, with a small eastern part (Sinai Peninsula) located in Asia. It is bordered by the Mediterranean Sea to the north, the Red Sea and Saudi Arabia to the east, Sudan to the south, and Libya to the west. The area of Egypt is estimated to be approximately 1 million kilometres square. Egypt has a population of approximately 80 million, the great majority of which live in the riverbanks and Delta. It enjoys a distinguished location and an international reputation due to the Suez Canal, an artificial sea-level waterway that connects the Mediterranean Sea with the Red Sea.

Historically, Egypt is famous for a long history of civilisation mainly due to the River Nile that made life possible in a country most of which is desert. This long-established civilisation was a mixture of different heritages due to the various rulers who ruled Egypt (e.g., Pharaohs, Greeks, Romans, and Muslim-Arabs). The Pharaonic period (dated from around 3150 BC), the most famous stage, witnessed great establishments in science, knowledge, architecture, mummification, agriculture, and many other aspects which are still being studied under an umbrella discipline called 'Egyptology'. More specifically, Egypt is famous for the monuments left by the Pharaohs (e.g. pyramids, temples, statues, and drawings) which have made it a very famous tourist attraction to many people all over the world (The World Factbook, 2007).

With the Arab invasion of Egypt in the 7th century, Arabic and Islam were introduced, and since then, Egypt has been known as a Muslim-Arab country with a Christian minority who freely practise their own religious rituals in churches. In the 20th century, and after a significant period of monarchic rule that was full of political struggles and foreign interference, Egypt was proclaimed a republic (i.e. the first republic) in 1952.

This significant period witnessed reformation in all social, economical, and educational aspects (The World Factbook, 2007).

A major and significant political event in Egypt is the recent 25th of January Revolution on 2011 that took place in Al-Tahrir Square in Central Cairo. This event is regarded as the greatest and most influential revolution in the Egyptian history that should lead to a new era of real democracy and social justice after a period of political, social, and financial corruption. It resulted in the stepping down of the ex-president Hosni Mubarak in the 11th of February, 2011 after ruling Egypt for more than 30 years. This significant event will lead, after the current transitional period, to the establishment of the second republic that will be based on a parliamentary system and a new constitution. This new state of affairs should allow for conducting new reforms in education and other sectors.

1.2.2 Literacy and education

With the 1952 revolution, radical changes took place in the educational system in general and higher education in particular. For example, the Education Act of 1953 provided compulsory education for all children between the ages of 6 and 12 (Encyclopedia of the Nations, 2009). In the academic year 1962-3, free university education was introduced (Selim, 2007), and thus, young people were allowed to join any college or university based on their scores, not their social classes, connections, and/or money.

Since the 1960s, literacy has been a significant and debated issue in Egypt because of the persistent illiteracy problem. In 1966, illiteracy in Egypt was estimated at more than 70%; in 1995, it was 48.6% (males, 36.4%; females, 61.2%); in the year 2000, projected adult illiteracy rates stood at 44.7% (males, 33.4%; females, 56.3%) (Encyclopedia of the Nations, 2009). Literacy was known as the ability to master the basic Arabic reading and writing skills as well as the basic numeracy skills. Although education was obligatory and free, many people either did not join schools at all or left schools early. Some poor families, for example, needed their children to work at an early age to help with the living expenses. Besides, it was a tradition in most rural and Upper-Egyptian areas to deprive females of education, giving priority to males. This resulted in illiteracy among a lot of people, especially in rural societies.

The Ministry of Education (MOE) initiated adult education to overcome the illiteracy problem and in 1993, the government conducted a campaign against illiteracy. Business firms were required to combat illiteracy among their employees, and recent university

graduates were hired to lead literacy classes. In addition, the government established 3,000 one-class schools (also known as community and rural schools) to teach a non-traditional study plan based on an active learning approach. These schools were aimed at girls who were unlikely to attend formal schooling, and as a result, were likely to remain illiterate. They provided vocational training and lessons on income generating businesses, in addition to the more traditional classes in Arabic, religion, sciences, and arithmetic (Encyclopedia of the Nations, 2009).

However, in spite of these efforts, illiteracy is still a severe problem in Egypt, especially with the increasing use of ICTs that has added more literacy requirements, and shifted the focus from the basic reading, writing, and numeric skills, to the basic computer and Internet skills. Nowadays, the concept of literacy has expanded to include other multi-modal and technological dimensions (Abdallah, 2008). Hence, the concept, whether globally or in Egypt, started to include new forms and dimensions that the educational system in Egypt must take into account. It is hoped that after the 25th of January revolution, which represented the best example of how technological literacy and social networking could change the political regime as a whole, drastic reformations will be made to include these new forms of literacy at all educational levels.

Education in Egypt is compulsory for 9 years (i.e. basic education provided by both primary schools for 6 years and preparatory schools for 3 years). These governmental schools, run and administered by the MOE, provide free secular formal education that allows equal access and opportunities for all students from the age of six. This compulsory stage leads to a secondary stage which is divided into two types: (1) The 3-year general secondary schools that qualify students to join higher education since the general secondary certificate in itself does not allow for recruitment; and (2) the technical secondary school comprising agricultural, industrial, and secretarial schools where students study for 3 years (basic) or 5 years (advanced) (Selim, 2007).

Parallel to these governmental schools, there also exist religious schools (Al-Azhar), which are not controlled by MOE. They mainly focus on teaching about Islam in addition to the general sciences. There are also experimental and language schools that present content in foreign languages such as English and French, which are not always free. Some of these schools are run by MOE, while others are totally private and independent (See Bahaa Eddin, 1991; Cook, 1998; Mahrouse, 1994).

Since the 1952 revolution, the Egyptian educational system has been characterised by being highly centralised and bureaucratic (Gahin, 2001) as the goal is to provide a uniform type of education to everyone. The teaching methods followed in the Egyptian formal education are mostly teacher-centred, fostering memorisation and rote learning, and assessment methods are always paper-based, and for the students are often associated with tension and fear (Jarrar & Massialas, 1992), especially during the secondary stage when learning becomes highly competitive, with students concentrating their efforts and spending considerable amounts of money on private tutoring to get the highest possible scores to secure places in good, prestigious universities (Hartmann, 2008).

These competitive conditions have led to the spread of some passive phenomena such as private tutorials, which are officially banned by the government (Gahin, 2001), cheating in exams, and a strong focus on answering model exam questions rather than digesting the content and applying it to real life. In this regard, some educationalists (e.g., Gahin, 2001; Hargreaves, 1997) notice that exam scores seem to be the major motive for learning, and therefore, they go further to describe the Egyptian education, especially during the secondary school, as being based on information consumption, rather than production, and memorisation rather than creativity.

To overcome this and to make formal learning more enjoyable and relevant, active learning-based strategies have been recently introduced to the Egyptian primary schools. In addition, reformation plans are currently being made in this transitional period to resolve these problems and passive phenomena. These include: (1) increasing financial funding for education; (2) increasing teachers' salaries so that they can focus more on their formal teaching; (3) building new schools to encompass the increasing number of students; (4) assigning rewards for distinguished performance of teachers; and (5) integrating new technologies and ICTs as essential components in the educational process.

1.2.3 Tertiary (Higher) education

This is the post-secondary stage during which students study at universities or institutes for 4 years. Some institutes require only 2 years of study, while most colleges or faculties in the Egyptian universities require a minimum of 4 years, with few exceptions like colleges of medicine (6 years), pharmacy, and engineering (5 years). All universities should comply with the rules and guidelines specified by the Ministry of

Higher Education (MOHE), but each university has its own independent administration system chaired by the university president that deals with its own internal affairs. Each college in the university, as Selim (2007) states, has its own administration system as well, which is chaired by a dean, but ultimately, all colleges are controlled by the university president who appoints the deans and vice-deans. Recently, teaching staff members at Egyptian universities have requested on Facebook that all university presidents, deans, and vice-deans should be appointed based on election systems. This, as the new Minister of Higher Education has recently announced, will be done right from the beginning of the next academic year 2011/12.

Each academic department within a college is chaired by the head of department, but all decisions taken within each department should be endorsed by a college board chaired by the dean and consisting of heads of departments and some representative professors who meet on a monthly basis.

Historically, in the mid 1950s and 1960s, higher education was greatly expanded and jobs were guaranteed to university graduates. However, as a result of rapidly growing enrolments in the 1970s and 1980s, the quality of education deteriorated considerably. For example, classes became excessively large, with scarce resources, and learning was little more than memorisation and repetition. Unfortunately, the system does not foster the development of problem-solving or creative-thinking abilities (Richards, 1992).

As a result of the vastly increasing population, and consequently, the increasing number of students enrolled in higher education institutions, Egypt now has a very extensive higher education system. Approximately 30% of all Egyptians in the relevant age group go to university. The MOHE supervises the tertiary level of education and there are a number of universities catering to students in diverse fields. Currently, there are 17 public universities, 51 public non-university institutions, 16 private universities, and 89 private higher institutions. Out of the 51 non-university institutions, 47 are 2-year middle technical institutes and 4 are 4-5 years higher technical institutes (Selim, 2007; The World Bank, 2009a)

The Egyptian higher education is steered by a centralised system with institutions having little control over decisions regarding the curriculum, programme development, and deployment of staff. In order to improve this outdated system, rigid curriculum, and teaching practices, the government established the National Agency for Quality Assurance and Accreditation of Education (NAQAAE) as an independent entity, with

the aim of introducing international best practices, promoting quality, and providing greater autonomy to the universities and technical institutes (The NQAAC, 2004). However, this practice is not sufficient and there are persistent calls nowadays, especially after the recent revolution, to make drastic changes to improve the whole system. Unfortunately, and despite the leading role of Egypt in the Arab educational reformation in the past, no single Egyptian university is currently ranked among the top 500 universities in the world.

Secondary school students in their first year at university are likely to be influenced by their previous academic experiences, and thus require some time before they are able to make a transition. Although academic learning at universities is largely based on memorisation and rote learning, students' tension decreases as they feel more relaxed after securing places. However, a significant difference that EFL student teachers notice is that, unlike the secondary stage, the textbook at universities is not the only learning resource; sometimes they are asked to go to the library and write short research papers. Further, because English language and literature are very broad areas that cannot be fully covered in small textbooks or pamphlets, new students are required to check resources on linguistics and literature to understand the topics covered in the lectures and build their linguistic skills. A number of student teachers nowadays find it easier to resort to the Internet for locating relevant data, regarding it as an easy, manageable information resource with quick searching facilities that save them time and effort (Abdallah, 2011).

1.2.4 New technologies in higher education

Generally, in Egyptian higher education, there have been several initiatives and projects for integrating new technologies into universities. One of the significant projects is the Information and Communications Technology Project (ICTP). One of its contributions was establishing a digital library to provide all public universities with online academic research content and full access to over 22,000 international journals in almost all subjects to both staff members and students. The design of ICT courses (e-learning) was also completed and applied during the academic year 2006/07. E-learning activities progressed well with the design of 30 e-learning courses completed before the end of 2006. One e-learning course was already applied during the academic year 2005/06 (Hamdy, 2007).

Egyptian universities in general, and Assiut University in particular, have been updating themselves in terms of new technologies and modern learning trends since the early 1990s. For example, four Egyptian universities (Cairo, Ain Shams, Alexandria, and Assiut) started the implementation of open-university learning programmes in the areas of human sciences (Selim, 2007). Since then, considerable effort has been exerted to cope with the technological revolution and the vast developments in ICTs. A significant indication of entering the age of the Internet is the establishment of the Egyptian universities' network (EUN) which is affiliated to the Supreme Council of Universities (www.eun.eg). The EUN has been linking Universities and research centres in Egypt to the WWW since 1993. It provides contact services with the Internet in addition to internal link lines among Egyptian universities to exchange information ((EUN, 2009; Selim, 2007).

Assiut University was one of the first universities in Egypt to embrace this technological revolution in ICT; its network is one of the oldest university networks in Egypt as it was established in 1996 to provide Internet services to all colleges, departments, labs, libraries, and staff at the university (AISEP, 2007). Assiut University has been developing new learning and communication systems and projects based on the Internet facilities provided by its network, especially because it is part of the EUN. For example, it currently provides opportunities for e-learning and distance education as well as some services for registered students, such as software download (Assiut University, 2009).

The Faculties of Education Enhancement Project (FOEEP) was launched to improve the quality, efficiency, and relevance of higher education teacher preparation institutions in Egypt. Specifically, it was initiated to improve the quality of colleges or faculties of education by providing the necessary equipment, Internet connectivity, and tools that might help with enhancing the quality of education and training provided by these colleges for prospective teachers (Hamdy, 2007).

1.2.5 Pre-service EFL teacher education at colleges of education

Generally, the English language enjoys a highly recognised status in Egypt as the most widely used and preferred foreign language (Schaub, 2003). In terms of job opportunities and travelling abroad, preference is given to those who master the English language to a reasonable degree as evidenced by the high TOEFL and IELTS scores that the Egyptian government, institutions, and even private companies stipulate. This stands

as an important motivation for ELL, especially at the university level (Abdel Latif, 2009; Gahin, 2001; Ibrahim, 2009). This general public attitude has influenced parents, caregivers, and the whole society to the extent that nowadays the English section, as a prestigious section in colleges of education, is an attraction to students who choose teaching as a future career. Therefore, many students expend considerable effort to get high scores in English in the secondary schools; they study the language in a structural, test-oriented fashion to get high scores, disregarding using it for communication.

Due to the increasing number of students who make the English section their first choice in the college entrance interviews, the required minimum scores for the applicants based on the secondary certificate English test, has been raised recently (in some cases reaching 94% of the total score). Unfortunately, this has made secondary school students more focussed on memorising grammatical rules and training themselves in answering model English tests and previous exams than on mastering the communicative functions and socio-cultural aspects of the language, though MOE (2000) lists mastering communicative functions and lifelong learning skills as an important goal for learning English as a foreign language.

In this transitional stage, EFL student teachers spend their first year still influenced by their previous academic experiences and tensions, which Hargreaves (1997) identifies as competition, the existence of one textbook for each subject, dependency on private tutoring, memorisation, and rote learning. They, as I realised from my own experience of MA study (Abdallah, 2005), struggle to come to grips with new literacy aspects, which they have not considered during their previous stages of education.

In Egypt, in both public and private universities, pre-service EFL teacher preparation is undertaken in the Departments of English at colleges of education. In these colleges, EFL student teachers have to attend a 4-year undergraduate programme before getting their BA degree in English literature and education (Abdel Latif, 2009). During this period, they learn three categories of courses: (1) cultural courses, including subjects like Arabic and French; (2) academic courses related to English and literature (e.g., Linguistics, Translation, Essay Writing, English History and Civilisation, Novel, Drama, and Poetry); and (3) educational courses, including courses in foundations of education and psychology as well as a TESOL/TEFL Methodology course that will be of special concern in this study. All language courses (including TESOL/TEFL

Methodology) are delivered in English (as both content and medium of instruction), while all the other cultural and educational courses are delivered in Arabic.

In the first two years, student teachers study language courses such as Linguistics (e.g., Grammar and Phonetics), courses in Literature (e.g., Poetry, Drama and Novel), Translation, Essay Writing, along with general introductory courses in Education and Psychology. In the last two years, they study these academic courses along with more educational subjects, including a Teaching Practice course that requires them to work in some nearby schools. In other words, in their last two years of university study, there is a parallel focus on both English language and educational subjects unlike the first two years in which the focus is mainly on English language and Literature. Due to the large numbers of EFL student teachers, the lecture is used as the main mode of instruction. Most methods of assessment take traditional paper-based formats that are associated with memorisation and rote learning, and which cause considerable tension for the participants.

1.3 Problem of the Study

1.3.1 Review of relevant research

Since the Internet was released to the public in 1993 (Dudeney, 2000; Sherman, 2003; Teeler & Gray, 2000; Warschauer et al, 2000), much empirical research has been conducted to address using the Web in education and ELL. Many studies highlighted the importance of using the Web in teaching and learning illustrating how it made a difference compared with traditional instruction in many contexts, such as those conducted by: Al-Jarf (2006) with some EFL student teachers enrolled in a pre-service teacher education programme in Saudi Arabia; Cole and Hilliard (2006) with students of low socio-economic backgrounds in the US; Englert et al (2005) using two design experiments to improve the word recognition performance of students at risk of school failure in the US by employing Internet-based software; and Sullivan and Pratt (1996) who compared students in two ESL writing environments in a US university: a networked computer-assisted classroom and a traditional oral classroom.

Other studies addressed the impact of some Web-based tools such as e-mail considering its potential influence both as an instructional tool and a means of communication (e.g., studies by: Bloch, 2002, who examined the way students in a graduate-level ESL course

in the US used e-mail on their own initiative to interact with their instructor; and Yu and Yu, 2002, who investigated the impacts of incorporating e-mail for prospective teachers in a classroom setting in Taiwan); online chat (e.g., a study by Simpson, 2005, at the University of Leeds, UK); and Blogs (e.g., a study by Chen and Bonk, 2008, in Chinese higher education, showing how Blogs provided new ideas for assessment).

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.

Other studies consider particular aspects of students' direct interaction with the Web, especially in the context of reading and ELL. For example, Henry (2006) suggested a SEARCH¹ model for organising the process of locating information online, especially within the American context. In the same vein, Damico and Baidon (2007) examined the ways in which readers engage with websites during think-aloud sessions using an eighth-grade social studies classroom located in a mid-western city in the US. Moreover, Aydin (2007) and Usun (2003) in a Turkish context, and Leino (2006) in a Finnish context, explored students' perceptions and attitudes towards the Web and its possible educational uses and displayed the advantages and disadvantages of the Web from students' perspectives. Aydin (2007) found that EFL learners had positive

¹ An acronym that summarises the six steps of this model or searching framework: 1. Set a purpose for searching; 2. Employ effective search strategies; 3. Analyse search-engine results; 4. Read critically and synthesise information; 5. Cite your sources; and 6. How successful was your search?

attitudes towards it suggesting that such attitudes would contribute to foreign language learning via the Web after overcoming some potential problems.

Many studies have addressed Internet use in university education. In the English context for example, Eynon (2008) explored the motivations and barriers to adopting the Web in teaching/learning at the institutional and individual staff level. Eynon concluded that while there may be great potential for using ICTs for some aspects of teaching and learning, their adoption is not straightforward; the use of the Web in teaching and learning does not appear to be providing a ready solution.

In the Egyptian context, some studies (e.g., Awad, 2002; El-Maghraby, 2004; Mekheimer, 2005) dealt with the Internet in TEFL and ELL. Being purely experimental, these studies focussed on particular language skills and how instructional programmes utilising some Web-based tools can be effective in developing these skills. In the Arab world in general, other studies with a qualitative orientation, such as Al-Bulushi (2008), investigated computer-mediated communication (CMC) as a Web-based communication technology and how it provided an authentic language-learning context and a supportive environment where English language learners interacted synchronously and negotiated meaning in a collaborative atmosphere.

Other studies (e.g., Alghazo, 2006 in the United Arab Emirates) indicated that one of the factors impeding classroom use of the Web is teachers' lack of expertise. This can be attributed to insufficient training in ICTs in pre-service education programmes. Recently, at the national level, many Egyptian colleges of education have begun to provide training in technology-based instruction. Many programmes like IELP-II¹ were launched for developing literacy and language competencies for Egyptian EFL teachers. They offered training for teaching staff over five years to promote the use of technology and enhancing ELT (Mekheimer, 2005: p60). Despite this, 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 programmes at Egyptian colleges of education still focus on general computer skills without practically relating them to ELL.

¹ Stands for: Integrated English Language Program-Two

On a superficial level, the new practices associated with new technologies, especially the Web, have created a conflict between 'foundational' literacy and 'new' literacies that many researchers (e.g., Leu et al, 2004; Leu & Kinzer, 2003) tried to resolve by suggesting that new literacies build on foundational ones rather than replace them. In this sense, beside the basic abilities of encoding and decoding the language which are still important, other more advanced reading and writing skills and strategies associated with the Web and other ICTs (e.g., reading quickly, selectively, and critically online) are also required.

Many studies have addressed these new literacy practices in the context of education. These include: (1) compulsory school education and English learning, as reported by Andrews (2004); (2) adult literacy education (e.g., Snyder et al, 2005, in their Adult Literacy National Project Report, Australia); and (3) education at all levels, as reflected in research by the New Literacies Research Team (2008) at the University of Connecticut, US, on the new literacies (e.g., online reading comprehension skills) required for students to successfully exploit the Web and other ICTs (Coiro, 2007; Coiro & Dobler, 2007; Leu, 2007).

Research in the US (e.g., Janisch & Johnson, 2003; Kinzer, 2003) indicates that successful teaching/learning depends on teachers' commitment to improving their instructional practices and their selection and implementation of meaningful and engaging literacy practices inside the classroom. Thus, teachers who want to be viewed by their students as relevant and knowledgeable about the world need to demonstrate awareness of everyday literacy practices. This involves mastering some new literacy practices perceived as a direct result of the continuous interaction between new technologies and literacy (Bruce, 1997). The effect of new technologies and media like the Web on literacy has been so prominent that literacy researchers, as Nixon (2003) concludes, need to develop new repertoires of literacy practices in relation to everyday use of ICTs, and how to research new media and online literacies. In this context, Burnett et al (2006) based on a case study in North England showed that technology can be used to promote new literacy practices in the classroom through the production of new kinds of texts.

These new literacy practices have been investigated, especially within a language teacher education context, in terms of their relation to the following: computer-mediated communication (CMC) (e.g., Arnold & Ducate 2006 in the US; Lee, 2002 in Korea);

digital and Web-based technologies (e.g., Chandler-Olcott & Mahar, 2003 in Queensland, Australia; Kamhi-Stein, 2000 in the US; Snyder et al, 2008 at Monash University, Melbourne, Australia); online distance learning environments (e.g., Goodfellow, 2004 in the UK); meaning making in a context of increased cultural/linguistic diversity attached to ESL/TESOL (Mills, 2006 in Australia); and real English teaching practices in the classroom (e.g., La Fleur, 2009 in South Africa). Mills refers to these new practices as ‘multiliteracies’ situated within the new communication channels and multi-modal semiotic systems including textual practices based on Web interactions. Through a socio-cultural study in a Catholic primary school in Australia, Cumming-Potvin et al (2003) explored the new forms of L2 literacy practices. Further, focussing on the electronic literacy practices of two Korean-American heritage language learners who manage Korean weblogs, Lee (2006) concluded that electronic literacy practices provide authentic opportunities to use the language and support the development of social networks among students.

In the same vein, Doering and Beach (2002) analysed the uses of various Web-based technologies (e.g., asynchronous Web discussion) to enhance literacy practices within a multi-genre writing project at the University of Minnesota, US, that involved pre-service English teachers working with middle school students. Results indicated that Web-based communication with students helped pre-service teachers to develop relationships with students in the absence of face-to-face interaction. Meanwhile, through participation in the WebCT bulletin board, pre-service teachers employed different literacy practices ranging from the display of spontaneous thinking to engaging in word- and role-play.

Similarly, Arnold and Ducate (2006) examined transcripts from a semester-long asynchronous discussion through discussion boards between foreign language methodology classes at two different universities in the US. Results indicated that student teachers engaged in a high degree of interactivity as well as all types of social and cognitive presence; students not only progressed in their cognitive understanding of the pedagogical topics, but also employed social presence to aid their discussions. Moreover, the study suggested that encouraging future language teachers to learn with technology before teaching with it allows them to become comfortable using various computer and Web-based applications, an idea that was also proposed and strongly defended by Richardson (2009). This is essential in preparing future teachers for the

effective use of the Web in language learning contexts as they become more likely to incorporate Web-based technologies into their own teaching.

Likewise, La Fleur's (2009) case study investigated the electronic literacy practices of one English teacher and two Grade-10 English classes in a Muslim High school outside Johannesburg, South Africa. The aim was to identify the electronic literacy forms used in the classroom and the purposes of using them, and to investigate how the students would engage with these new literacy forms. Findings revealed that being electronically literate in the English classroom means having access to sophisticated forms of Web-based technologies not only inside the classroom but also outside it. They also showed an expansion of the English teacher's role, as s/he is no longer only 'a mediator of learning', but also a mediator of technology. The status of the text has also changed as the disappearance of print-based texts from the classroom was noted with the foregrounding of visual texts and hypertexts. It was found that all students were engaged with the employed Web-based technologies expressing a preference for their integration into their lessons as opposed to the traditional, print-based 'reading and writing' practices.

Some studies, on the other hand, focused on specific Web-based facilities as components of Web 2.0 or the Read/Write Web, the second generation of the Web (Luo, 2010), in terms of how they can facilitate language learning by enabling new genres of literacy and language practice (e.g., studies by: Lund, 2008, that was conducted with EFL learners at Hillside Senior High School, UK; Mak & Coniam 2008, that used Wikis to enhance and develop writing skills among secondary school students in Hong Kong; and Soares, 2008, that investigated class Blogs as a tool for language development for EFL students in a language school in Brazil). For example, Mak and Coniam (2008) investigated using Wiki in an ELL context as a valuable tool for fostering authentic social/collaborative writing as a new genre of writing associated with the Web. They concluded that students wrote better when they used a Wiki as a platform for collaboratively generating, editing, sharing, and redrafting the content to be produced. Similar results and insights were reached by Lund (2008) who examined Wikis from a socio-cultural perspective; analysing some videotaped Wiki activities within an EFL context, Lund concluded that Wikis hold the potential for collective knowledge advancement and language development.

In the same vein, using class Blogs in an English language class with a group of Brazilian students, Soares (2008) presented a rationale behind using Blogs in language classes and concluded positively that students regarded Blogs as a learning tool that enabled them to get in touch with students in other contexts, and thus fostered the use of written language to express themselves.

Buckingham (2007) claims that a wide gap exists between what students do at home and what they do at school, creating what he calls, 'the new digital divide'. Hence, Schultz (2002) highlights the necessity of looking outside the physical space of schools and beyond the time that students are in classrooms to see students' capabilities. This gap between in-school and out-of-school literacy practices can be bridged, as Ware and Warschauer (2005) suggest, when educators encourage students to engage with hybrid texts that draw on multiple modes of representation. Consistent with this argument are studies by Bulfin and North (2007), and Snyder et al (2008). In Australia, Bulfin and North (2007) explored the relationship between literacy practices at home, school, and other spaces, concluding that young people's engagement with language, learning, and digital technologies might be seen as a dialogic negotiation of a complex range of texts and practices that flow across and between school, home, and other spaces. In the same context, Snyder et al (2008) report on a survey dealing with the digital literacy practices of some Australian students aiming at providing a comprehensive account of young people's engagement with digital technologies in various contexts of their lives, and considering the implications of this for school education. The Web acts as an important digital tool that facilitates new digital literacy practices, such as surfing the Web for resources and contacting other people through e-mail and chat.

As far as integrating new literacies and technologies based on the Web within language learning and/or pre-service teacher education contexts is concerned, some studies attempted this integration in different ways. For example, Kamhi-Stein's (2000) study in the US represented one of the earliest attempts to integrate new literacies and Web-based technologies (e.g., Web-Based Bulletin Board Discussions) into the EFL/TESOL teacher education programmes. In the same vein, many recent studies have explored this integration into curriculum (e.g., Chen, 2008; Sarsar, 2008) and teacher education programmes (e.g., Cavanaugh, 2005; Meller & Hatch, 2008). McVee et al (2008) have recently conducted a study as an instance of teacher research carried out in the context of a teacher education course in new literacies and technologies in the US wherein

teacher educators attempted to take up new literacy practices. Findings indicate that teacher educators must foster environments to share problem-solving and distributed learning, to support design and multi-modal redesign of texts, and to explore literacy and technology as transactional processes. The study suggests that the learning environment, approach to learning, knowledge about multimodal text design, and stance toward literacy and technology may be far more important than the technologies that teachers use to enact their instructional plans. Meanwhile, Meller and Hatch (2008) explored the process of introducing critical literacies for pre-service teachers in the US. They described introductory practices used to prepare future urban teachers in Kansas, US, to implement critical literacy strategies in their classrooms.

Other studies addressed the process of including new literacies into formal curricula, especially within teacher education programmes. For example, to embed new literacies into the curriculum, Sarsar (2008) created a classroom website to help students in a United Arab Emirates context to move from a mono-modal approach that relies mainly on print-based text to a multi-modal one that requires them to explore a variety of modes. Some studies have dealt with using new technologies including Web-based applications in literacy education. Boling (2008), for example, investigates pre-service teachers' conceptions of the role of new technologies, such as Blogs and instant messages, in literacy education in the US. In Korea, Kim et al (2008) addressed the revision and redesign of ICT literacy curriculum in teacher education programmes to include new developments and innovations. In another study within a Taiwanese EFL teacher education context, Chen (2008) concludes that there is a need to prepare EFL teachers to integrate the Web into their instruction after investigating the factors influencing this integration.

1.3.2 Statement of the problem

My identification of the central issue of this study started in 2000 when I was interacting with EFL student teachers in workshops that included applications of literacy, TESOL/TEFL methodology, and educational technology. A significant period of interaction occurred during the academic year 2004/5 while I was administering my MA programme on oral language literacy practices to a group of EFL student teachers, which I reported in a recent book (Abdallah, 2010a). These interactions fostered a feeling that the learners needed to expand their literacy practices by integrating the Web into their education programme. This feeling was reinforced by EFL teacher educators' viewpoints and seminar discussions on integrating new technologies, especially the

Web, into the EFL teacher education programme at AUCOE. Moreover, student teachers performed poorly when assigned some ordinary language-based literacy tasks, such as writing a short essay or working collaboratively to develop an argument.

To ground this feeling on an empirical basis, I conducted a short investigation (Abdallah, 2011) (a pilot study published as a journal article) with 30 EFL teacher educators and senior student teachers at AUCOE. In response to online semi-structured interviews (see Appendix A), all participants indicated that EFL student teachers at AUCOE: (1) did not receive any training in the college on using the Web for ELL purposes; (2) were not provided with adequate or systematic opportunities to use the Web throughout their education programme; (3) had not heard about 'new literacies' before; (4) believed in the great promise the Internet holds for ELL; and (5) experienced difficulties in using the Web for academic purposes, such as using inappropriate strategies for locating data, and thus describing themselves as "lost on the Web" (Abdallah, 2011).

Theoretically, new technologies, and subsequently the new practices attached to them, are regarded by AUCOE as an essential component in the process of EFL student teacher preparation. Besides, the vision of the college positions international communication with foreign people as an important goal that EFL student teachers should accomplish after graduation as members in society. In addition, the standards adopted by the college focus on literacy and using language in different contexts and in real communication, and one of the objectives of the college is to advance and revise the undergraduate study programmes to cope with the global, international standards as well as the national, local, and contextual needs. However, in reality, as an online review of the AUCOE pre-service EFL teacher education programme bylaws (AUCOE, 2008) revealed, the college was still unable to provide any training in the Web-based new literacies needed; although two courses were supposed to address these literacies (i.e. Educational Technology and TESOL/TEFL Methodology), their contents were not sufficiently updated to do the job (Abdallah, 2011).

Moreover, fixed instruction that drives students to memorise facts and learn by heart is still dominant in the Egyptian context, as noted in my book (Abdallah, 2010a) and pilot study (Abdallah, 2011), and as reported by many PhD studies targeting the Egyptian context (e.g., Abdel Latif, 2009; Gahin, 2001; Ibrahim, 2009). It is surprising that AUCOE, as a teacher preparation institution, still relies on knowledge transmission as

the main teaching method. Beside being contradictory to the contents of the curriculum and methodology courses in the college, which harshly criticise knowledge transmission and advocate the use of modern methodologies and technologies that cater for individual differences and learning styles, this approach does not help learners to reflect on what they learn and employ that knowledge in real-life contexts.

This is critical within a teacher education context that should target professional development and lifelong learning more than the mere memorisation of specific contents. Thus, Egyptian teacher preparation institutions in general, and AUCOE in particular, need to integrate new technologies to provide EFL student teachers with better learning opportunities that cater for their needs in the 21st century, which so far has been dominated by ICTs as new literacy tools. Although using new ICTs, especially the Web, in language learning has recently increased, little has been published on the how-to aspect of technology integration, especially in the context of pre-service EFL teacher education programmes (Dudeney et al, 2008). The situation in Egypt reveals a clear contradiction between the national projects that seek to improve the performance of the colleges of education with greater focus on new technologies on the one hand, and the current practices of EFL student teachers which are still paper-based along with the traditional teaching/learning methods that do not employ available computers and Internet connections for ELL purposes on the other.

A review of these programmes in Egypt reveals that the TESOL knowledge base represented in the undergraduate courses is still static, and not sufficiently updated to address Web-based new literacies and applications in ELT and ELL. Similarly, a review of empirical studies conducted in the Egyptian context (see 1.3.1 above for examples) reveals a lack of theorisation regarding the implementation of ICTs in general and the Web in particular, for educational and language learning purposes, especially in the context of pre-service EFL teacher education. Most empirical studies were merely individual attempts that focused on specific Web-based applications such as e-mail and chat, and how to use them for improving and/or developing specific skills for EFL student teachers (e.g., Ali, 2008; Mekheimer, 2005); they did not address the process of integrating them into the programme itself or suggest any guidelines, models, or frameworks useful for Egyptian colleges of education. This lack of theorisation resulted in inconsistencies among these studies that did not generate common design principles or guidelines to be used by EFL teacher educators, and thus, an improvement in practice was not realised.

Moreover, being purely experimental, these studies targeted certain aspects of ELL and TEFL by testing the effectiveness of certain applications in developing linguistic skills for learners without exploring issues of literacy practices, curriculum design, professional development, and/or lifelong learning that should go beyond the narrow scope of the mere technical uses of the Web. Besides, researchers tended to implement ready-made models without considering, in a developmental, dialogic fashion, the contextual elements of the Egyptian programmes and the real needs of EFL student teachers. It is argued that processes of change and innovation should be devised for the particular context, and not imported from other contexts (Fullan, 2000; Handy & Aitken, 1986).

Although there is an international call for including new literacies in teacher education programmes, no teacher education institution in Egypt, to the best of my knowledge, has yet taken this step. Despite an increased interest in new literacies and ICTs in the educational context, it is surprising that few studies have actually been conducted on Web-based new literacies within language learning contexts, especially in pre-service EFL teacher education programmes. While it is often suggested that pre-service teacher education should be reconceived in response to the demands of new literacies, little, in Cervetti et al's (2006) terms, has been written about the programme itself.

Many of these few studies focused on Web-based reading strategies (e.g., Kymes, 2005; Schmar-Dobler, 2003; Sutherland-Smith, 2002) suggesting a need to reshape thinking about classroom reading practices and the concept of literacy. To the best of my knowledge, no studies have tackled the extension or expansion of EFL student teachers' language-related literacy practices by integrating Web-based new literacies into their pre-service teacher education programmes, especially within the Egyptian context. Awad's (2002) study is the only one targeting this integration within an Egyptian secondary-education context; it investigated the possibility of integrating the Internet into EFL instruction to determine whether the Internet can indeed contribute anything to modern language teaching. However, there were no clear guidelines to inform future practices, or any reference to teacher education programmes as ideal contexts for integrating the Web.

From a curriculum design perspective, EFL curricula in the pre-service teacher education programmes, with specific reference to AUCOE, are pre-designed from a 'fidelity' perspective that requires abiding by strict rules and guidelines during

implementation regardless of the specific context, rather than from an 'enactment' perspective that considers the real teaching-learning process as a major resource for informing the curriculum design process. Therefore, this design process is still insufficiently dynamic to address many emergent global and contextual issues. Besides, and in van den Akker's (2003) terms, there is a wide gap between the three levels of the 'intended', 'implemented', and 'attained' curriculum. In other words, the intended domain, which involves the guidelines and goals made by policy makers and curriculum developers, the implemented domain, which relates to the world of teaching and learning, and the attained domain, which is attached to the students themselves and their achievement, are inconsistent with each other. For example, though one of the main goals of EFL teacher education in AUCOE is to equip prospective teachers of English with the new technologies and practices that enable them to communicate globally and locally with others and use the language for functional-communicative purposes (AUCOE, 2008), the real practices of student teachers are still too poor to reflect this goal (Abdallah, 2011).

Thus, EFL student teachers at AUCOE lack the necessary knowledge, competencies, and skills required to use the Web for language learning purposes. Hence, a design framework that involves principles and guidelines for expanding EFL student teachers' language-related literacy practices by integrating some Web-based new literacies into the target context, is sought through the present study.

1.4 Objectives of the Study

The main objective here is to explore the possibility of expanding the language-related literacy practices for Egyptian EFL student teachers in the context of their pre-service education programme, with specific reference to AUCOE, by integrating some Web-based new literacies into this programme. The main research aim is, therefore, to investigate and understand the relationship between new literacies and the teaching of TESOL in order to build a theoretical framework for the design of curricula. Accomplishing this aim can be realised through the accomplishment of some minor objectives represented in:

- 1) Identifying those Web-based new literacies that EFL student teachers currently need as well as those Web-based facilities useful to them, and why and how they might be useful in this context;

2) Establishing a design framework that includes principles and guidelines for expanding Egyptian EFL student teachers' language-related literacy practices. This entails:

- a) Identifying a guiding language learning theory that is compatible with both the global trends followed in TESOL/TEFL, especially as far as EFL teacher education is concerned; and the student teachers' local needs and their particular learning context as reflected in empirical data;
- b) Generating some procedures that might be useful for administering future courses with the same orientation through iterative cycles of evaluation and refinement;
- c) Bridging the gap between theory and practice in TESOL/TEFL within the Egyptian context of AUCOE by identifying practical applications of the Web in TESOL and pre-service EFL teacher education programmes, and using a design-based research (DBR) methodology that targets the improvement of current educational practices.

3) Generating implications that inform the curriculum design process within Egyptian pre-service EFL teacher education programmes in general, and the one provided by AUCOE in particular.

4) Introducing new methodologies and products into the Egyptian context. This involves:

- a) Introducing design-based research (DBR) as a new paradigm into the Egyptian context of educational research as an alternative to the commonly-used (and dominant) experimental design that has not resolved the many problems which still exist;
- b) Introducing a revised format of DBR that is compatible with PhD studies;
- c) Introducing new methods and techniques of data collection and analysis facilitated by new technologies (e.g., online interviews, online questionnaires, and NVivo 8); and
- d) Introducing curricular products as models that EFL teacher educators can refer to for integrating Web-based new literacies into their teaching practices.

1.5 Significance of the Study

The achievement of the objectives outlined above should contribute, both theoretically and practically, to the area of TESOL/TEFL Methodology in general, and to Egyptian pre-service EFL teacher education in particular, and should have significant implications for EFL curriculum design.

In terms of TESOL/TEFL knowledge base, the study is significant as it contributes theoretically to the field by:

- a) Focusing on Web-based new literacies and classifying them to compile a comprehensive list included under an underlying taxonomy, to be contextualised in the Egyptian context. This is essential as the continuous development of the concept of literacy needs further research to address educational implications associated with rapid developments (Coiro et al, 2008; Leu et al, 2005);
- b) Presenting a thorough analysis based on empirical data of those Web-based facilities that can be used within language learning contexts in general, and EFL teacher education programmes in particular, and a rationale that explains why and how these facilities can be useful;
- c) Introducing in the prototyping phase new pedagogies, approaches, and designs, which are not familiar within the Egyptian context, such as socio-culturalism, socio-constructivist learning, community of practice (CoP), Web-mediated language learning (WMLL), and blended learning.

In terms of educational research, the study is significant because:

- a) It introduces design-based research into educational research in Egypt, and thus paves the way for future studies that might target the improvement of educational practices in the context of public education in general, and pre-service EFL teacher preparation in particular.
- b) It helps with narrowing down the existing wide gap between theory and practice in educational research in Egypt (see Gahin, 2001; Tohamy, 2009), which makes it irrelevant to the real practices inside the classroom, and results in a loss of credibility among practitioners.

- c) It can motivate TESOL/TEFL researchers to investigate specific language and literacy-related topics, such as new literacies of reading comprehension, collaborative writing using Web-based tools like Wikis and Google documents, and connective writing using Blogs.
- d) It opens new horizons for research in TEFL/TESOL methodology, as new teaching methods based on new technologies may emerge in response to new literacies.
- e) It introduces many innovative techniques that can facilitate the research process in Egypt, such as using online tools for administering data collection methods (e.g., using chat software and e-mail for conducting interviews), and employing computer software to facilitate the data analysis process.

In terms of educational practice, the study is significant because:

- a) It helps with expanding EFL student teachers' language-related literacy practices while they are studying English as a foreign language, and this, in turn, should help them to improve their learning practices in general.
- b) It introduces to EFL teacher educators in general and Egyptian educators in particular, many possibilities and avenues for employing the Web to improve their teaching practices.
- c) It exposes student teachers to new practices that should foster the lifelong learning skills necessary for their future careers.

1.6 Research Questions

To realise the objectives described above, the following questions will be addressed:

- 1) What is the range of Web-based new literacies that Egyptian EFL student teachers need in the context of their pre-service teacher education programmes to cope with the increasing use of ICTs in TEFL?
- 2) Which Web-based facilities are beneficial to Egyptian EFL student teachers, and why and how can they be beneficial?

- 3) Which design principles are effective as guidelines for expanding the language-related literacy practices of Egyptian EFL student teachers at Assiut University College of Education (AUCOE) through integrating some Web-based new literacies into their education programme?
- 4) What are the implications of the suggested design principles for EFL curriculum design in the target context of AUCOE?
- 5) What are the methodological implications of employing an educational design-based research (DBR) methodology along with some innovative techniques for data collection and analysis, for the Egyptian context of educational enquiry?

1.7 Definitions of Research Terms

In this section, I define the main terms used in the study:

a) Web-based new literacies

‘New literacies’ is a broad term with a multiple nature which indicates that technology and literacy are quickly converging (Kapitzke, 2001; Leu, 2000b). In addition to being multiple, new literacies are always changing because every day, innovations come to the fore requiring certain literacies, and therefore, after some time, today’s literacies will become obsolete (Leu, 2000a). This makes the concept wide and vague, and hence, if we use ‘new literacies’ without linking it to a specific reference, it can refer to all innovations and technologies. Hence, if the Web is the main technology in focus, ‘Web-based new literacies’ will be the appropriate term to use (Abdallah, 2010b).

Drawing on their cognitive-psycholinguistic background to literacy, Leu (2002: Online) and Leu et al (2004: Online) define new literacies based on the Internet as:

The knowledge, skills, strategies, competencies and insights that allow us to effectively use the Internet and other ICTs to identify problems, locate information, analyse the usefulness of that information, synthesise information to solve problems, and communicate the solutions to others.

Though comprehensive, this definition needs to be adapted in order to achieve a balance between cognitive approaches and social approaches to literacy, enabling it to function within my context and purposes.

I therefore suggest the following definition for ‘Web-based new literacies’ in the context of TESOL and pre-service EFL teacher education:

The Web-associated knowledge, insights, skills, strategies and competencies that EFL student teachers need for an effective employment of the Web in language learning (Abdallah, 2010b: p5).

b) Web-based facilities

Web-based applications and services have recently increased in scope, especially with the development of Web 2.0 which has recently fostered social networking, collaborative knowledge construction, publication of any Web-based content, and sharing many types of files online (O’Reily, 2005; Richardson, 2009). Hence, I need to use a comprehensive term like ‘Web-based facilities’ to describe all these tools that can be useful within a language learning context. Therefore, I perceive 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 be used as spaces for learning and language practice.

c) Design-based research (DBR)

One of the problematic issues of DBR is that there are many labels attached to it, such as ‘design experiments’, ‘design research’, and ‘developmental research’. To facilitate matters, I will restrict myself to the label ‘design-based research’ (DBR) after the Design-Based Research Collective (DBRC, 2003).

To distinguish DBR, some definitions were provided; the most comprehensive one that captures the overall philosophy and procedures of DBR was provided by Wang and Hannafin (2005: p6):

a systematic but flexible methodology aimed to improve educational practices through iterative analysis, design, development, and implementation, based on collaboration among researchers and practitioners in real-world settings, and leading to contextually-sensitive design principles and theories.

From another perspective, Shavelson et al (2003) identify DBR as a type of research strongly based on prior research and theory and carried out in educational settings. It seeks to trace the evolution of learning in complex, messy classrooms and schools, test and build theories of teaching and learning, and produce instructional tools that survive challenges found in everyday practice.

Similarly, Barab and Squire (2004: p2) view DBR as "a methodological toolkit" for deriving "evidence-based claims" from naturalistic learning contexts that are engineered in ways that allow for generating and improving these claims with the intent of "producing new theories, artefacts, and practices that account for and potentially impact learning and teaching".

From a methodological standpoint, Bannan-Ritland (personal communication, 2009) perceives DBR as "a meta-methodology combining different methods at different points in the innovation cycle".

Based on these definitions, I can signpost the core of DBR as follows:

DBR is a new paradigm or methodology in educational research that is based on both theory and previous research with the aim of improving educational practice. It is conducted in the real, complex, and messy learning/teaching contexts through iterative cycles of analysis, design, development, and implementation mediated by some interventions. It originates from real educational problems and/or challenges, and ends with design principles and/or learning theories subject to continuous refinement and improvement. Thus, the products/outputs of DBR are design principles, learning theories, interventions, curricular products, instructional tools, and/or practical solutions/prescriptions.

d) Language-related literacy practices

Scribner and Cole (1981: p236) define literacy practices as "socially developed and patterned ways of using technology and knowledge to accomplish tasks".

For the purposes of the study, I define 'language-related literacy practices' in the target context as:

Those practices that involve using the English language for a variety of learning tasks and pragmatic purposes, such as self-expression, communicating ideas to others, sharing knowledge, and reading and writing in a variety of genres and modes. Those practices are subject to change and expansion depending on the technologies of literacy being used such as the Web as well as the new language functions and/or dimensions enabled by these technologies.

1.8 Outline of Thesis

Because this is a three-phase design study, the structure of the thesis is unique. After Chapter 1 sets the scene for the study by introducing the rationale behind it, the context of the study, the research problem supported by relevant literature in the field, the research objectives, and the main research questions, Chapter 2 introduces the research framework that is based on a three-phase design-based research (DBR) methodology.

Although Chapter 2 usually introduces a literature review, here because literature review is part of the design (i.e., part of the preliminary phase of the study), this chapter introduces the main methodology and research framework guiding the whole study. Since DBR is an emerging paradigm in educational research, a comprehensive review will be provided presenting many important aspects about the paradigm itself and the rationale behind choosing it over a wide range of options (e.g., action research, experimental research, and interpretative research).

Chapter 3 starts the preliminary phase of the study by presenting a review of relevant literature that is quite different from the brief review presented in Chapter 1 as an empirical background to contextualise and support the problem of the study. As part of the research framework, this detailed literature review focuses on three main areas: EFL teacher education as a context that should lead to lifelong learning, and the curriculum design process within it; Web-based new literacies as an extension of the traditional concept of literacy; and Web-based facilities as online spaces for language learning.

Chapter 4 presents the data obtained in the preliminary phase. The first section presents the data collection and analysis methods used in the preliminary phase and which are compatible with the main DBR paradigm guiding the whole study (i.e. literature review combined with documentary analysis; online questionnaire; and online semi-structured interviews). The second section presents the detailed results obtained from using these methods. More specifically, this chapter answers the first and second research questions by presenting the final list of Web-based new literacies based on a quantitative analysis using SPSS as well as a list of some Web-based facilities based on a qualitative thematic analysis of the interviews using NVivo 8.

The second phase (the prototyping phase) is explored in Chapters 5 and 6. Chapter 5 presents the first iteration of the design study (i.e. Community of Practice or CoP design) guided by a preliminary design framework based on both literature review and empirical data obtained from Chapter 4. This iteration includes a discussion of the learning theory, design principles, participants, procedures, and results that should be cycled back into a refined design framework to guide the second iteration. Chapter 6 presents the second iteration (i.e. the blended design). The first section presents a more comprehensive design framework based on some empirical data as well as lessons learned from the first iteration. The second section presents the second iteration as a micro-cycle of the whole research process. This includes discussion of objectives,

methodology and learning design, participants, the interventional programme, procedures, and obtained results that should inform the third phase.

Chapter 7 outlines the third phase (the assessment/reflective phase) in which a final design framework is presented as the main results of the study based on lessons learned from the prototyping phase; this will answer the third and fourth research questions. Thus, the chapter presents both the final design framework that includes some suggested design principles as the main contribution of the study, and implications for EFL curriculum design within the Egyptian context of pre-service EFL teacher education, with specific reference to AUCOE.

The final chapter, Chapter 8, is a conclusion for the whole thesis that presents the main implications and contributions of the study (to methodology, knowledge, and practice), and thus answers the fifth and last research question on methodology; it then presents the limitations of the study followed by recommendations and suggestions for future research, and finally conclusions and reflections on the whole research process.

CHAPTER TWO: RESEARCH FRAMEWORK AND DESIGN: INTRODUCING EDUCATIONAL DESIGN-BASED RESEARCH

This chapter introduces the research framework and design of the study, which is mainly guided by a three-phase design-based research (DBR) methodology. It is important to elaborate on many aspects related to the paradigm since it is new to the educational context in Egypt. Thus, the chapter aims to show where it stands among other paradigms. This involves addressing the unique characteristics that rationalise its appropriateness for the purposes of the study. It might seem strange to discuss the research framework this early in the thesis, even before presenting a review of relevant literature, but the unique nature of the study justifies this.

2.1 Introduction: Rationale and Range of Possibilities

2.1.1 Reviewing the status-quo of educational research in Egypt

Although education belongs to human and social sciences, the main paradigm dominating the Egyptian context of educational research, especially in the area of curriculum and instruction, is the positivist paradigm or the experimentalist tradition. Other prominent paradigms and/or methodologies such as interpretivism and constructionism (Crotty, 1998; Pring, 2005) are not used. Thus, the same scientific, objective methods employed in the physical sciences are used for curriculum studies (Gahin, 2001; Abdel Latif, 2009). This contradicts both the nature of the identified problems, and the national tendency to improve educational practice (Ibrahim, 2009). Methods aiming at improving practice (e.g., action research and DBR) are not officially recognised (Abdel Latif, 2009; Gahin, 2001; Tohamy, 2009).

This fact, by turn, has influenced the design of the post-graduate courses dealing with educational enquiry and research methodologies in this area, to the extent that the message that all post-graduate students get is: "If you want to do research in the area of curriculum and teaching methodology, you must use an experimental research design" (see also Gahin, 2001; Abdel Latif, 2009). As a result, all researchers use only quantifiable tools for data collection and analysis that should eventually produce statistically significant results, with the result that little attention is paid to details regarding the research paradigm or framework employed; instead, they go directly into the research tools and procedures, with the implications that experimental design is the

standard format for all studies. As Gahin (2001) reports, using semi-structured interviews as a data collection method with Egyptian participants was a problematic issue for him since no researchers had previously used this method in educational research in Egypt. Therefore, scholars need to understand the different paradigms that can be used and the wide range of the quantitative and qualitative methods for data collection and analysis that these paradigms involve.

Educational research in Egypt is attacked for being overly theoretical and isolated from the real practices inside schools and educational institutions (Tohamy, 2009). The role of educational studies seems to be to help the researcher achieve promotion and to exist in Egyptian libraries only as reference for other researchers (see also Ahmed & Springuel, 2006). Policy makers and practitioners rarely refer to these studies.

2.1.2 Contextualising DBR by exploring the range of other possibly appropriate paradigms/methodologies

This design study investigates the possibility of expanding Egyptian EFL student teachers' language-related literacy practices by integrating some Web-based new literacies into their pre-service teacher education programmes, with specific reference to the programme presented by AUCOE. This entails generating a theoretical framework for design (i.e. design framework) that includes some design principles to be tested through short interventions. To realise this main goal, a range of research methodologies can be used, such as experimental research, action research, and formative evaluation, all of which are similar to DBR.

The experimental research design (ERD) is the most popular approach in Egypt, which might be confused with design experiments as a variety of DBR. Therefore, following the Design-Based Research Collective (DBRC) (2003), I use the term 'DBR' to avoid any confusion. At first glance, ERD seems an appropriate design since it involves pre-post testing that can produce statistically accurate results. However, a deeper look reveals that it is not the right fit for my context in which the studied phenomenon is complicated and, consequently, strict experimental control is hard to realise. Variables cannot be clearly distinguished and isolated in such messy, realistic learning situations, and controlling variables is not my main concern; my main concern is to characterise the situation and reach a better design through a prototyping process. This involves both

quantitative and qualitative processes, not random controlled trials that merely produce quantitative, statistical descriptions.

Lagemann (2002) argues that the traditional experimental paradigm has striven for experimental control at the expense of fidelity to learning as it actually occurs. Realising this problematic issue, Brown (1992), Collins (1999), Collins et al (2004), and Kelly (2006) present some major differences that distinguish the two approaches (see Table 1 below):

Table 1: Comparison of experimental design and design-based research

<i>Category</i>	<i>Experimental Research</i>	<i>Design-Based Research</i>
Orientation	Controls variables	Characterises the situation
Location	Artificial laboratory settings	Messy, natural learning/teaching situations
Procedures	Follows fixed procedures	Follows flexible procedures to refine designs
Learning	Values isolated learning	Values social interaction
Hypotheses Testing	Tests hypotheses	Generates/Cultivates hypotheses

Thus, studying learning as it occurs in its real context has been disregarded for a long time. Brown (1992) stresses the inherent limitedness of insights scientifically driven from experimental, laboratory educational research in their ability to explain or predict learning in the classroom. Similarly, Walker (2006) comments on the inconvenience of the conventional psychological theories dominating educational research for studying learning in context to achieve reform. Hence, Kelly et al (2008) argue that DBR methods can help to accomplish what experimental designs, especially randomised trials, cannot; they include conceptual, relational, and semantic analyses, and are theoretically grounded, and thus allow researchers to build models of learning/teaching interactions.

In science education, Juuti and Lavonen (2006) criticise the conventional trust in the accuracy of the findings obtained from (quasi-)experimental research designs favouring

a DBR design. They highlight the difficulty of controlling all the variables involved in teaching/learning. Many uncontrollable factors (e.g., physical, psychological, and social) may interfere with the teaching/learning process. These include: classroom settings, social and psychological atmosphere, pupils' motivation, attitudes towards learning topics or schooling in general, and students' experiences outside the school (e.g., discussions with their parents and the media).

At the other extreme, the interpretivist research paradigm (IRP) seems a better alternative since it has emerged in reaction to the dominance of positivism with the goal of studying learning phenomena in great depth (Crotty, 2003; Flick, 2006; Grix, 2004). Generating a design framework requires a deeper level of analysis. However, despite the in-depth analytical accounts it provides and, sometimes, the models and designs it suggests for practice (Flick, 2006), the IRP does not interfere directly to change or improve educational reality by examining theory in context. DBR, as Barab and Squire (2004) and Van den Akker et al (2006) argue, is a context where the research moves beyond simply observing to involve systematically engineering learning contexts in ways that allow for generating evidence-based claims about learning. This feature distinguishes it from ethnographic research (as a type of interpretative research), which, though set in natural learning environments, produces rich descriptions and understandings of learning situations with no attempt to change educational practice (Collins et al, 2004).

In terms of connecting theory to practice, action research and formative research are two approaches which seem similar to DBR (Bielaczyc & Collins, 2007), and hence might be appropriate for the purposes of the study. A persistent argument is whether DBR is the same as action research (Järvinen, 2005), which also aims to bridge the gap between research and practice in education (Somekh, 1995) through investigating and understanding reality with its associated complexities and problems, and implementing interventions to solve realistic problems, and thus, improve educational practices in local teaching/learning settings (Cohen et al, 2007). DBR aims not simply to refine a design intervention toward improving practice, but also to refine theory and provide some useful design principles to be tested and used in practice, something that might or might not be targeted by action research studies (Bielaczyc & Collins, 2007; Orrill, personal communication, 2009).

Though action research might also aim at refining theory in some instances, the element of *design* is clearly more evident in DBR projects. In other words, because of its original emphasis on designing computer artefacts, there is an engineering approach to design, especially as far as computer environments and innovations are concerned. This emphasis in particular might take DBR away from action research, which originated in the communities of teacher education and practice, not computer- or technology-based environments (Bielaczyc & Collins, 2007). Thus, in DBR studies, there is a need to refine the artefacts (which are not the main end products) in conjunction with refining the environments in which they are used (Bielaczyc, 2006).

Another significant difference is that an action research study might help with resolving a practical learning problem without necessarily producing any design principles or theoretical frameworks to be taken further by other researchers. In this regard, action research is typically focused more on a *practical* outcome rather than on a *theoretical* one. Along with this practical orientation, action research might provide theoretical arguments. However, it does not necessarily strive for generalisations, or perhaps even for explanations, but simply focuses on achieving a desired practical end (Edelson, 2006; Sandoval & Bell, 2004). On the other hand, DBR is very much concerned with generalisations, of at least two types: (1) generating explanations for how designs do (or do not) lead to desired (or undesired) outcomes, which are generalisable to some extent; (2) principles for designing particular kinds of interventions (Sandoval, personal communications, 2009).

Another difference relates to the roles of the participants in each: while in DBR researchers usually take the initiative in the research process as both researchers and designers (Wang & Hannafin, 2005), in action research practitioners usually initiate the research process after identifying a real problem that needs to be resolved; later on, they invite researchers to help with facilitating the research process (Cohen et al, 2007).

Formative evaluation is closely related to DBR since both are naturalistic, process-oriented, and iterative involving creating tangible designs that work in complex social settings. However, formative evaluation does not entail theory generation as a goal; rather, its goal is to improve the practice of design (Barab & Squire, 2004). That is why formative evaluation is employed as a main methodology under the umbrella of DBR, not the other way around (Nieveen, 2007; Plomp, 2007; Wang & Hannafin, 2005). Thus, assessment in DBR may be used formatively to determine progress towards

mastery of disciplinary knowledge (Cobb & Gravemeijer, 2008) and/or to guide the design of a prototype and inform its iterative redesign as necessary (Kelly et al, 2008). Hence, Nieveen (2007) defines formative evaluation within a DBR context as "a systematically performed activity" that aims at quality improvement of a prototypical intervention and its accompanying design principles.

Generally, DBR is convenient when there is an intent to produce new theories that account for learning/teaching in naturalistic settings (Barab & Squire, 2004), and to provide insights and contributions for improving educational practice (Plomp, 2007). In this way, it functions as a means of bridging the gap between theory and practice by addressing real educational problems based on which design frameworks are developmentally formulated and enacted.

Moreover, since improving educational practice, especially in teacher education, has become an important aim of research in Egypt (Ahmed & Springuel, 2006), there is, in my view, a need to introduce DBR as a new paradigm that aims at improving both theory and practice, and as a means of building local theories based on realistic practices and interactions in the context.

In this sense, educational DBR can be used as an alternative to the experimental design, which has not succeeded in producing strong theoretical arguments and rigorous results that link theory to practice (see also Tohamy, 2009), or presenting principles for practitioners to consult when faced with practical problems. The nature of the curriculum and methodology topics in the Egyptian context needs a flexible paradigm under which many quantitative and qualitative methods can be combined to achieve certain objectives. Nowadays, there is a growing global tendency towards employing a pragmatic, flexible approach in educational research that employs a variety of methods to serve the educational problems identified without creating a clear-cut dichotomy between quantitative and qualitative approaches (Creswell, 2003; Kelly, 2006; Tashakkori & Teddlie, 2003).

2.1.3 Rationale for using DBR in the study

Drawing on the above arguments, DBR appears the most suitable paradigm here for the following reasons:

1. Research objectives should inform the choice of methodology, not the other way around. Thus, researchers must be eclectic in their search for truth (Pring, 2005), choosing the paradigm and methods that fit in with their research objectives.
2. DBR addresses complex problems whose solutions cannot be easily suggested without investigating the context and experimenting with preliminary designs (Plomp, 2007; Kelly, 2007). The study addresses a complicated problem for which there are no ready solutions. A design framework should be generated, evaluated, and refined through small interventions in the real context. This needs a balanced and flexible approach that employs both quantitative and qualitative methods and acknowledges the fundamentally applied nature of educational research (DBRC, 2008).
3. DBR draws upon the ontological and epistemological assumptions of pragmatism that differentiate it from both interpretivism and positivism. It is pragmatically oriented in the sense that the research objectives and questions determine the research approach and design (Creswell, 2003; Plomp, personal communication, 2009a). For the purposes of the study, educational research is perceived as a means for both building theories and improving the educational reality. DBR focuses on the ever-changing needs of participants (MacDonald, 2008: p437). The literacy needs of the participants are addressed by the first two research questions.
4. The study targets expanding language-related literacy practices by integrating some Web-based new literacies, the investigation of which requires a new research methodology (Bielaczyc & Collins, 2007). DBR begins with the basic assumption that existing educational practices are inadequate, or can, at least, be improved (Edelson, 2006: p103).
5. DBR was originally used for designing models to address emerging technological innovations (Wang & Hannafin, 2005). It has already been used in many studies aiming at improving ICT integration (Edelson, 2006; Sandoval & Bell, 2004; Wang & Hannafin, 2005), and has proven useful when researchers propose innovative technology-based solutions for educational problems (Kervin et al, 2006). Also, it has been useful when technology, CALL, and the design of interactive environments that foster language learning are addressed in a single study (Bannan-Ritland, 2003; Yutdhana, 2005). Technological innovations (e.g.,

the Web, ICT integration, and CALL) are relevant here since the study employs the Web as a means of literacy that should foster new literacy forms that student teachers encounter outside classrooms. The Web thus has many affordances, as far as literacy and ELL are concerned.

6. Pre-service EFL teacher education, where prospective teachers need to continuously develop their teaching/learning skills and educational practices, is an ideal context for conducting DBR (Cobb et al, 2003: p9). There, researchers and practitioners collaborate to achieve professional development for prospective teachers through the implementation of suggested designs that address realistic teaching/learning skills, competencies, and needs.
7. EFL curriculum design is a main concern in the study. DBR contributes to three types of outputs: design principles, curricular products, and professional development of participants (McKenney et al, 2006). Therefore, the articulation of principles to guide future curriculum design can be one goal of DBR (Bell & Linn, 2000: p797) as it affords the opportunity to develop detailed design knowledge (i.e. design principles or curriculum design patterns), while simultaneously advancing theoretical knowledge of learning (Bell et al, 2004: p74). Throughout a careful study of successive approximations of ideal interventions in their realistic contexts, insights are generated as to how to build and implement coherent components of a robust curriculum (McKenney et al, 2006: p72). Thus, a reciprocal relation between curriculum improvement and advances in theoretical frameworks distinguishes DBR from other approaches (Bell et al, 2004: p73). It has been clarified that the present TESOL curricula in AUCOE do not include Web-based new literacies; the outcomes of the interventions and the final design framework should present some conclusions and implications to be used for redesigning these curricula.

2.2 Ontology and Epistemology: Pragmatism as a Basis for DBR

Any research process involves a particular view of the world and the nature of social reality that guides the researcher's choice of research paradigm, methodology, methods, and procedures (Blaikie, 2000; Clough & Nutbrown, 2002; Grix, 2004; Lodico et al, 2006). Grix (2004: p66) argues that there are four main building blocks of research that

are closely interrelated: ontology (i.e. the existence of something out there to know); epistemology (i.e. the means through which we can know about it); methodology (i.e. how we can go about acquiring that knowledge); methods (i.e. the precise procedures to be used to acquire it); and sources (i.e. the specific data that should be collected).

As far as DBR is concerned, any discussion of ontology should address the 'ontological innovation' concept devised by diSessa and Cobb (2004: pp77-103) to express the continuous refinement of theoretical claims in reality to explain how the world works. The term means the "attributions we make to the world that necessarily participate in our deepest explanatory frameworks" (diSessa & Cobb: p84), and as a result, we find and validate a new category of existence. From this perspective, to understand and explain how the world works, explanatory constructs and new categories of objects should be hypothesised, developed, and then continuously experimented with in their real context with the aim of improving reality. Thus, any theoretical claims cannot be detached from the reality or context they seek to improve.

This entails a pragmatic, contextual view of knowledge as an interactive process that involves many factors (e.g., personal, mental, and social), and therefore, its formation cannot be studied in isolation. In this regard, Crotty (2003: p64) argues that "what is said to be 'the way things are' is really just 'the sense we make of them'". The quite different worlds which people inhabit constitute diverse ways of knowing and different sets of meanings. Hence, Schwandt (1998) elaborates on the importance of studying phenomena in their real contexts stating that many social actors constitute the world of lived reality giving it special meaning. Therefore, our perceptions add many dimensions to the stable object that exists. This interaction between the objective reality and our personal perceptions of it makes it difficult to grasp an absolute, taken-for-granted truth, and consequently, knowledge should be perceived relatively or, in Ernest's (1994: p36) words, as dependent on the knower and his/her social context.

Research, as Reeves (2000) argues, should address questions of genuine interest to educators and the findings should involve useful implications for practitioners, and thus, a link should be made between theory and practice. Unlike many other disciplines (e.g., physical sciences) that employ scientific methodologies, educational research has social dimensions (Crotty, 1998; Pring, 2005) since it is conducted by humans to address learning as a social phenomenon or, as Cohen et al (2007: p8) put it, since the human being is both the subject and object of study. However, the philosophical assumptions

underlying educational research, such as claims about the duality between mind and matter (Crotty, 1998), or between "the objective world of physical things and the subjective world of meanings" (Pring, 2005: p33), can cause difficulties for both researchers and practitioners, many of whom avoid such complicated arguments for the sake of focussing on practical research issues (Tashakorri & Teddlie, 2003). This duality was criticised by Badley (2003), Pring (2005), and Wellington (2003). Pring (2005: p33) regards it as a "mistaken duality", Wellington (2003: p17) perceives it as a "false polarization" defending the position of mixing both subjective and objective realities together since the two complement each other, and Badley (2003) goes even further, considering it a major cause of crisis in educational research.

As an alternative to the mind-matter dualism, the pragmatic approach to education, which dates back to Dewey (1929), posits a transactional realism, one in which reality only reveals itself as a result of the activities of the organism, and thus the focus should be on the "interactions between the living human organism and its environment" (Biesta & Burbules, 2003: p10). Instead of separating mind from matter (real world), Dewey's pragmatism incorporates both of them into one entity conceptualising nature itself as "a moving whole of interacting parts" (Dewey, 1929: p232). Dewey did not want to identify his pragmatism with any of the two extremes (i.e. idealism vs. realism). Instead, he wanted his philosophy to stand between objectivism and subjectivism, and between idealism and realism, highlighting the importance of real interaction with (and experience of) the lived world, and thus, favouring an experiential/experimental learning theory (Biesta & Burbules, 2003). Thus, Dewey views knowledge as a construction, not of the human mind, but located in the organism-transaction itself (Biesta & Burbules, 2003: p11).

Classical pragmatists opposed the correspondence theory of truth and the view of knowledge as representation; they positioned the acquisition of knowledge within the concept of action (Rorty, 2004). Moreover, Creswell (2003: p12) identifies pragmatism as a knowledge claim position that ranks with post-positivism and constructivism. According to him, pragmatism is a pluralistic real-world, practice-oriented, and problem-centred position that does not see the world as an absolute unity. Instead, truth is perceived as "what works at the time", and not as something "based in a strict dualism between the mind and a reality completely independent of the mind". Consequently, pragmatism offers a working perspective on educational research (Badley, 2003) whose main concern, according to Lodico et al (2006: p9), is to identify "what works" and

discover answers that help us to do things properly. It is not concerned with whether research is describing a real world or a socially-constructed one, or whether there is a single reality or multiple realities.

Thus, knowledge, from a pragmatic standpoint, is viewed as being collaboratively shaped by researchers and practitioners, and consequently, educational research should be viewed as a collaborative process aiming at simultaneously improving both theory and practice (Biesta & Burbules, 2003; Reeves, 2000; Reeves, 2006). Drawing on this pragmatic philosophy, Creswell (2003) and Tashakkori and Teddlie (1998; 2003) defend a mixed-methods approach to educational research as ‘a third methodological movement’ following the dominance of both positivism and interpretivism. According to this new approach, the research problem is the starting point, which determines the choice between various quantitative and qualitative methods to accomplish research objective(s). In line with this, Brew (2001) proposes a utopian, ideal state of educational research according to which free discussions between scholars and practitioners are encouraged, knowledge is seen as the product of communication and negotiation, and teaching sits in harmony with research.

Thus, pragmatism, as Tashakkori and Teddlie (1998) argue, has emerged as a grounding philosophy or approach to resolve the traditional conflict (i.e. paradigm wars) between two research paradigms (positivist and interpretivist/constructivist) in education and social science. More specifically, pragmatism, for me, contributes to this compromise on both the epistemological and methodological levels: On the epistemological level, it stands between the positivist and constructivist epistemological assumptions, while on the methodological one it makes use of both quantitative and qualitative methods for the sake of solving a particular research problem.

The emerging field of learning sciences from which the Design-Based Research (DBR) methodology springs, addresses the process of linking theory to practice by studying learning in real contexts to build understandings of its nature, and thus design and develop better learning environments (Collins et al, 2004; Miyake, 2006). In other words, the goal of design researchers is to directly impact on practice while advancing theory that will be of use to others. This goal draws on an epistemological standpoint for cognition or knowledge; knowledge, according to many learning scientists, is not something located within the individual thinker, but rather a process distributed across the knower, the environment in which knowing occurs, and the activity in which the

learner participates (Barab & Squire, 2004). The improvement of educational practices involves interactively combining many aspects together, namely design, research, theory, practice, and context (De Corte & Verschaffel, 2002; Wang & Hannafin, 2005). Hence, it is argued that DBR suggests a pragmatic philosophical underpinning according to which the value of a theory lies in its ability to produce changes in the world (Barab & Squire, 2004). Such a system of enquiry might draw much on pragmatic lines of enquiry where theories, according to Dewey, are judged not by their claims to truth, but by their ability to do work in the world in which all of us are actively engaged in a continuous process of transforming, refining, and improving it (Biesta & Burbules, 2003).

A clear link between pragmatism and DBR has been established. For example, Confrey (2006) states that pragmatism is more related to DBR than to experimental research as it does not place theory on a shelf to be used only as a guide to pristine experimentalism. Instead, it places it squarely into the real world of action and experience, and thus, it engages with complexity rather than striving to artificially reduce it. Similarly, the account that Lodico et al (2006) give on the principles of pragmatism as an action-oriented approach guiding educational research implies a clear and straightforward connection with DBR: (1) the immediate reality of solving educational problems should be the focus of educational research; (2) educational settings and problems can be studied using any method that accurately describes and solves problems; (3) educational research should strive to find ways to make education better; (4) researchers should collaborate with participants to fully understand what works; and (5) theories are useful tools in helping to improve education.

2.3 DBR as an Emerging Paradigm in Educational Research

2.3.1 Background

Reviewing the literature, Van den Akker et al (2006) and Wang and Hannafin (2005) notice that the term ‘design-based research’ describes a paradigm for which scholars have used different labels such as design experiments (Brown, 1992; Cobb et al, 2003), design research (e.g., Collins et al, 2004), development(al) research, formative research, and engineering research (Plomp, 2007). Though they involve slight internal differences, these labels share the same philosophy.

DBR is the outcome of endeavours to forge a paradigm and/or methodology in education, which sits between the traditional randomised trials of experimental research that rely on controlling variables, and the qualitative approaches that provide deeper accounts (Kelly, 2006). It came to the fore as a new pragmatic approach taking many forms in various educational settings to bridge the gap between theory and practice, and thus improve educational practices and resolve problems attached to them (Cobb et al, 2003). Instead of testing intact theories using traditional methodologies, DBR aims at developing and refining theories via closely linked strategies (Edelson, 2002), and therefore, it is often associated with other closely relevant types such as developmental research and formative research (Collins et al, 2004).

Some factors stimulated the establishment of a new paradigm in educational research; one factor is the growing need to develop 'usable knowledge' that connects the researchers' theoretical frameworks and understandings with the local context of practice (Lagemann, 2002; Wang & Hannafin, 2005). Increasingly, experts call for research to be judged not only on the merits of disciplined quality, but also on the adoption and impact in practice (DBRC, 2003; Kelly, 2004); otherwise, educational research will not involve any direct pragmatic benefits or implications for the contexts in which teaching/learning takes place. Another factor relates to the motivation to linking educational research to the problems and/or issues of everyday practice and classroom environments with their richness, messiness, and complexity (Brown, 1992). A third factor involves meeting the need to develop a design science of education (Collins, 1992), and the need for approaches to studying learning phenomena in the real world rather than the laboratory (Collins et al, 2004).

A significant factor relates to the present deteriorating status of educational research in general and the ongoing arguments that it is unworthy of funding as a research discipline (Davies, 1999; Hargreaves, 1996; Pring, 2005). Pring (2005) elaborates on the present poor condition of educational research, with a special focus on the UK and the US, suggesting that the major criticisms directed at it are based on the claim that it diagnoses the illnesses without providing the medicine. In other words, it is detached from practice as it does not provide alternative educational practices and/or evidence-based solutions (Davies, 1999; Walker, 2006; Yutdhana, 2005) to be used directly by policymakers, administrators, and practitioners. Though educational research provides useful insights, information, and ideas for improvement, this detachment causes a lack of credibility. Hence, some scholars (e.g., Burkhardt & Schoenfeldn, 2003; Levin &

O'Donnell, 1999; Plomp, 2007; Reeves, 2006; Van den Akker et al, 2006) argue for the need for new paradigms and/or methodologies like DBR to close this 'credibility gap' in educational research, and hence theory can be linked to practice and thus workable evidence-based solutions can be made.

Collins et al (2004) identify several needs central to the study of learning that DBR intends to address, and which rationalise establishing it as a new paradigm: (1) to address theoretical questions about the nature of learning in context; (2) to use approaches to studying the learning phenomena in the real world situations rather than the laboratory; (3) to go beyond narrow measures of learning; and (4) to derive research findings from formative evaluation. It seems that educators and researchers nowadays are after a flexible approach (i.e. mixed-method approach) in educational research that combines different effective methods (both quantitative and qualitative) to tackle educational problems in their real contexts, and thus, resolve the traditional detachment between educational research and real practices (Creswell, 2003; DBRC, 2003; Kelly, 2006; Tashakkori & Teddlie, 2003)

DBR has been originally known in educational research as 'design experiments' (Brown, 1992; De Corte & Verschaffel, 2002; Wang & Hannafin, 2005), though the former term, as Sandoval and Bell (2004) suggest, is more comprehensive and obvious than the latter, which denotes a specific form of controlled experimentation that does not capture the breadth of the approach. The development of DBR raises an important argument on whether DBR is a paradigm, a methodology, or a method. While Orrill (personal communication, 2009) perceives it as a methodology in educational research, Collins (personal communication, 2009) admits that it is an emerging paradigm that arose among researchers who were building computer-based learning environments. It attempts to create a new paradigm for educational research that relies on the progressive refinement of environments and/or designs and theories of learning in tandem. In this way, it is a valuable option to use if new interventions and educational practices based on new ICTs are to be investigated (Walker, 2006; Wang & Hannafin, 2005). Design is central in efforts to foster learning, create usable knowledge, and target educational reform (DBRC, 2003). The need for reforming education has become more urgent than ever since there is a gap between the education people need for the complex world of today and the education they actually receive (ERT, 1995). With the introduction of new ICTs in particular this gap is growing even wider calling for a necessary reform (De Corte & Verschaffel, 2002).

DBRC (2003) characterises DBR as a research paradigm which blends empirical research in education with the theory-driven design of learning environments, and, according to the Learning Theories Knowledgebase (2008), it is an emerging approach for understanding how, when, and why educational innovations work in practice, inquiring into the nature of learning in a complex system to refine generative or predictive theories of learning. For Barab and Squire (2004) and Wang and Hannafin (2005), DBR is more often categorised as a ‘research paradigm’ rather than an ‘evaluation method’. Discussing the theoretical breadth and scope of DBR, Bell (2004) concludes that with its focus on promoting and understanding innovation in the real world, it is considered a form of scholarly inquiry.

A persistent question is: why DBR now? According to Van den Akker, et al (2006), there are three main motives for using DBR: (1) the desire to increase the relevance of research for educational policy and practice; (2) the goal of developing empirically-grounded theories through combined study of both the process of learning and the means supporting it; and (3) the aspiration of increasing the robustness of design practice. Generating theories does not involve controlling all the variables in a naturalistic context to produce a reliable, valid theory applicable in any context at anytime. Instead, the challenge, as Barab and Squire (2004) argue, is to develop flexibly adaptive theories that remain useful even when applied to new local contexts. In addition, a fourth major motive, as implied by Bell et al (2004), is the growing need for new methods to conduct interventionist research in naturalistic settings motivated by the systemic nature of education and the rapid changes occurring in the teaching-learning context.

2.3.2 Characteristics

There are many characteristics that distinguish DBR making it a unique approach. On a broad methodological level, DBR eliminates the boundary between design and research by making the design process an opportunity to advance the researchers’ understanding of teaching, learning, and the educational systems (Edelson, 2002: p107; Dede, 2005). Thus, under the umbrella of DBR, research and design are not two distinct processes that happen sequentially as is the case in the traditional theory-testing paradigm.

Kelly (2003) and Van den Akker et al (2006) characterise DBR as being: (1) ‘interventionist’, since the research aims at designing interventions in real-world settings; (2) ‘iterative’, since it incorporates cycles of analysis, design/development,

evaluation, and revision; (3) 'collaborative', since it involves active participation of practitioners in the various research stages and activities; (4) 'process-oriented', since the focus is on understanding and/or improving interventions, and hence, a black-box model of input–output measurement is avoided; (5) 'utility-oriented', since the merit of a design is measured in part by its practicality for users in real contexts; and (6) 'theory-driven', since the design is, partly at least, based on a conceptual framework and theoretical propositions, whilst the systematic evaluation of consecutive prototypes of the intervention contributes to theory building.

In the same vein, Bowler and Large (2008) characterise DBR as: (1) 'multi-purposed', as it serves theory, design, and practice; (2) 'contextual', in the sense that research is conducted in its real learning setting where researchers, practitioners, and users are part of the context; (3) 'flexible', as it uses a combination of (qualitative and quantitative) mixed methods as the need demands, and this flexibility is a strength in it; and (4) 'producing a working artefact' in the form of a curriculum, programme, learning environment, or a piece of software.

Compared with other research methodologies, DBR is a complicated, open-ended, creative, and challenging process (Edelson, 2002: p108). This, in part, can be attributed to: (1) the messy nature of the actual learning environment where it is impossible to control all the inter-related variables associated with the learning process; (2) the large amounts of data that need to be collected and analysed to evaluate the design and understand what is happening; and (3) the great efforts that design researchers exert, especially when they cooperate with co-participants and practitioners (Collins et al, 2004).

DBR involves using different and mixed methods (Bell, 2004) in the processes of data collection and the evaluation and refinement of the design which help to increase the "objectivity, validity, credibility and applicability" of the findings (Wang & Hannafin, 2005). Some DBR authors such as Hoadley, Nieveen, and Sandoval (personal communications, 2009) suggest mixing different methods or, as Nieveen argues, the triangulation of data sources and respondents based on the fact that "the effectiveness of triangulation rests on the premise that the weaknesses in each single data resource will be compensated by the counterbalancing strength of another".

2.4 Criticism and Challenges

2.4.1 Areas of criticism

There are a number of criticisms regarding DBR, since it is an emerging paradigm that has been recently adopted with enthusiasm. A significant area of criticism relates to the absence of standards, especially those required for identifying when a design should be abandoned or seen as promising enough to warrant future exploration (Dede, 2005). DBR is a long-term project which should address open, complicated problems (Kelly, 2007), and this might interfere with the school time, plans, and schedules since it is conducted within the natural, messy teaching/learning situations. The absence of unified standards can be attributed, in my opinion, to two main factors: (1) the fact that DBR is still an emerging paradigm in its early stages (see also Bielaczyc & Collins, 2007) that is struggling to stand among other main paradigms used in educational enquiry; (2) each research study has its own nature (i.e. goals, purposes, context, and constraints), and using DBR should fit in within these particular elements. In this regard, Bielaczyc and Collins (2007) and Dede (2004) strongly recommend that the DBR community should engage in substantial collective reflection on setting standards that improve the quality of DBR.

Another point of criticism relates to the fact that DBR, compared with other research approaches and methodologies, can be ‘over-methodologised’, with excessive amounts of collected data and, subsequently, much required analysis (Brown, 1992; Brown & Campione, 1994; Dede, 2004). Based on her research work with Campione (Brown & Campione, 1994), Brown elaborates on the different types and means of data collection (e.g., students’ scripts, observations, records of students’ portfolios, and extensive audio and video tapes) which also lead to another concern related to selection bias; she was particularly worried whether by selecting cases to illustrate her points, she might have created a biased view of the data. Brown was also worried about the Hawthorne effects potentially introduced by their unavoidably obtrusive presence in implementing evolving design interventions and in collecting massive mixed-methods data.

Being ‘under-conceptualised’ is a third point (diSessa & Cobb, 2004; Dede, 2004). Many design studies lack a strong theoretical foundation, as they do not attempt to generate findings important for the refinement and evolution of theory, a significant contribution that any design study should consider. According to Dede (2004), part of this shortfall may be attributed to the fact that the skills of creative designers and the

attributes of rigorous scholars have limited overlap. Effective design-based research groups usually try to strike a balance between ‘whatever works’ for innovation and controlled, principled variations. People fascinated by artefacts often start with a predetermined solution and seek educational problems to which it can be applied, which ultimately leads to under-conceptualised research. However, Dede (2004) contends that under-conceptualising and over-methodologising are not intrinsic to DBR, as some design studies result in valuable findings using elegant collection and analysis strategies.

A fourth point relates to the ‘difficulty of making generalisations’ among participants. According to O’Donnell (2004), this may be because of the complexity involved in implementation. In addition, generalisation in DBR may be difficult due to the inability to control many variables in complex settings and to analyse in full the large amount of data collected before the next cycle (Kelly et al, 2008).

A fifth point relates to the ‘tensions’ that need to be resolved in order for DBR to have a stronger methodology. In particular, Bielaczyc and Collins (2007) characterise three critical leverage points in the dialogue to strengthen DBR, namely the tensions between contributing to theory and contributing to practice, between wholes and parts, and between disciplinary and inter-disciplinary training of design researchers. The tension between theory and practice, in particular, raises challenges to those engaged in DBR because a significant aspect of this tension concerns the issue of how to actually contribute to theory development in a way that it leads to both conceptual understanding and to practical dissemination (Brown, 1994).

2.4.2 Some contextual challenges

In relation to the areas of criticism discussed above, there are a number of challenges for using DBR in this study. These challenges are addressed below with special focus on how to manage them in this particular context.

a) The challenge of context and time span

DBR, as noted above, is assumed to be a long-term, time-consuming research endeavour. Herrington et al (2007) argue that DBR is avoided by doctoral students who are expected to complete their degrees in 4-5 years, but, in a sense, it can be feasible when they adjust it to suit the context and particular conditions of their PhD studies. Initially I was reluctant to adopt DBR, especially because this PhD project should not exceed 4 years during which the field study in Egypt should be conducted within 3

months. To resolve this, a flexible, simplified format of DBR compatible with the time span of the study and the researcher's context is employed.

One of the most outstanding characteristics of DBR is that it is a flexible methodology that can be adjusted to the purposes of the research work (Wang & Hannafin, 2005). The impetus for conducting this research study existed as early as the year 2000 when I began to interact with EFL student teachers and observed their language-related literacy practices (see also Chapter 1). Furthermore, I had been communicating online with some EFL student teachers and teacher educators since February 2008 to formulate the research problem. This period of interaction, which resulted in a published pilot study (Abdallah, 2011), involved EFL student teachers and teacher educators in the research project from the very beginning.

b) Challenges of reliability, validity, and credibility

The challenge of validity and credibility is persistent in DBR as it is a flexible methodology that uses both qualitative and quantitative methods for processing data without any controlled experimentation. The perplexing question is 'Are there any specific criteria based on which the design is judged to be valid and credible, and thus can be replicated to other contexts?' Addressing this challenge, Bowel and Large (2008) and Collins et al (2004) contend that the contextual nature of DBR is the key answer. Although theory developed within a controlled, laboratory environment may lay claim to external validity, it may lack ecological validity and, thus, makes no sense in the real world. The strength of DBR is that it happens in real context, and its resulting designs are able to meet certain local needs and be useful to practitioners, and hence, the validity issue is addressed. Further, the practice of using multiple methods in DBR builds a body of evidence that may enhance and confirm the credibility of findings (Wang & Hannafin, 2005: p8).

It is not possible in most educational contexts to employ the so-called 'gold standard' experiments, or what Kelly (2006) refers to as the 'black box' metaphor, such as those used in medical research, to the educational processes as is the case with randomised trials. Instead, design-based researchers utilise multiple, mixed methods to build up a body of evidence that supports the theoretical principles underlying a specific innovation and refines the innovation itself in context (Kelly, 2004; Wang & Hannafin, 2005: p8). Therefore, a useful practice for addressing any concerns related to reliability, validity, and credibility associated with DBR is to use triangulation as a research

technique which scholars perceive as "a powerful way of demonstrating concurrent validity" (Cohen et al, 2007: p141). Triangulation overcomes the weaknesses of subjectivity (Ernest, 1994: p24) as the more the methods vary and contrast with each other, the greater the researcher's confidence will be.

c) The challenge of adaptability

DBR is a flexible research design that is open to modifications and adaptations to be made as the context and research conditions require (Plomp, 2007). Further, design researchers should adapt themselves to other roles to play beside their fundamental role as researchers (e.g., the additional roles of designers, advisors, and facilitators) without losing sight of their primary role (Van den Akker et al, 2006; McKenney et al, 2006). This may complicate the process, but the good researcher knows how to balance these roles by realising when a role should be more dominant than another in a certain stage. Thus, adaptability requires that researchers should possess strong organisational and communicative capabilities as well as sound understanding of the research process so that careful changes and choices are made (McKenney et al, 2006).

d) The challenge of rigour

Many authors (e.g., Kelly, 2004; Hoadley, 2004) express some concerns related to rigour when DBR is conducted since it is still an emerging paradigm or methodology, which has not yet established its peculiar standards and criteria. Comparing it with experimental research that has long-established rigour and criteria, Hoadley (2004) argues that using DBR raises many questions related to rigour such as how to ensure that we have adequately characterised an intervention that we did not entirely control; and how to generalise outcomes and results to other contexts. However, he contends that DBR can be more rigorous in certain ways; in particular, it is strong at helping with connecting interventions to outcomes and can lead to better alignment between theory, treatments, and measurement than experimental research in complex realistic settings like the classroom.

In my opinion, although experimental research might seem more rigorous, researchers are still unable to isolate and control all variables. As far as human learning is concerned, many interfering variables (e.g., students' personal experiences and social backgrounds) cannot be fully controlled or isolated, and therefore, a new understanding of rigour should be established. A study whose results cannot be generalised to different contexts, but is contextual, deep, and detailed, could be seen as more rigorous than

another whose results are generalisable, but is inaccurate, with poor relevance to real contextual problems that need well-designed solutions. Generally, in educational research we cannot perfectly achieve all we want through a set of approaches, tools and/or methods simply because each one has its own strengths and weaknesses. We always obtain something at the expense of another. For example, through a qualitative method such as participant observation, a deeper, contextual understanding of a studied phenomenon may be attained, at the expense of a standard, objective understanding achieved through a quantitative method, such as a survey, which saves time and effort by being easily administered (see also Cohen et al 2007; Creswell, 2003; Pring, 2005; Tashakkori & Teddlie, 2003).

2.5 Research Framework: The Three-Phase DBR Design

After introducing DBR as the main paradigm utilised in the study, I introduce the research framework of the study which is based on a three-phase DBR design derived from Nieveen et al (2006) and Plomp (2007). A diagram was devised (see Figure 1 below) to illustrate this framework through outlining the research methods and procedures followed in the three phases of this design study to accomplish my objectives. All the chapters to follow will draw on this framework, especially as far as data collection and prototyping procedures are concerned.

It is worth mentioning here that in this chapter I do not present a detailed overview of the methods used in the whole study, but rather, from a theoretical standpoint, DBR as a paradigm and my own conceptualisation of how it will be employed in the study. Thus, I present here the main research framework, which delineates the organisation of the research methods and procedures under the DBR umbrella (see Figure 1). More details will be presented later on in the proper places.

Thus, a detailed description of all the research methods and tools of data collection and analysis used in the preliminary phase will be presented in Chapter 4. Later on, in each iteration in the prototyping phase (see Chapters 5 and 6), a methodology section specified for the minor research cycle conducted will explain the methods and/or tools used for data collection and analysis. These sections will be clearly compatible with the main DBR methodology presented here, and consequently with the mixed-method approach I draw on.

Reeves (2006) depicts the DBR approach as a process which starts from the identification and analysis of problems by researchers and practitioners in collaboration; and then goes through the development of prototyping solutions informed by theories, existing design principles, and technological innovations; then involves iterative cycles of testing and refinement of solutions in practice; and finally, results in reflection to produce design principles and enhance solution implementation in practice.

Drawing on Nieveen et al (2006: p154), and Plomp (2007), the procedures and steps followed for conducting the study fall under three main research phases (see Figure 1 below):

1. The *preliminary phase*, in which the procedures of needs and content analysis, review of literature, and development of a conceptual or theoretical framework for the study are conducted. As indicated in Figure 1 below, this stage involves identifying and formulating the problem of the study through: online interactions with participants; a review of relevant empirical studies to identify the gap; and real interactions with both EFL student teachers and their educators (a long-term process that started already a few years ago). It also involves doing a comprehensive review of literature that serves two main purposes: (1) clarifying the key research terms (e.g., Web-based new literacies, EFL teacher education, and curriculum design); and (2) providing a theoretical foundation for the concurrent documentary analysis process. Finally, it involves collecting preliminary empirical data at this stage through: (1) a documentary analysis process that leads to a list of Web-based new literacies; (2) semi-structured interviews (conducted online) that leads to some Web-based facilities. Both products are necessary for informing the preliminary design framework that should guide the next stage of this design study (i.e. the prototyping phase). The arrows in Figure 1 below illustrate such relationships, and thus provide a conceptual diagram of how the process goes.
2. The *prototyping phase* (the iterative design phase), which consists of iterations, each being a micro-cycle of research with formative evaluation as the most important research activity aimed at improving and refining the intervention. As Figure 1 shows, this phase is guided by a preliminary design framework concluded in the preliminary phase. This is followed by a screening questionnaire administered for purposive sampling. Each research cycle (as the

arrows in Figure 1 indicate) leads to a revised framework based on results and which guides the next cycle, until a final design framework is reached.

3. The *assessment/reflective phase*, which concludes whether the solution or intervention meets the pre-determined specifications, resulting in recommendations for improving the intervention. In this phase, a final design framework is reached throughout a comprehensive assessment of the 2 iterations or research cycles conducted in the previous stage. This framework (as the arrows indicate) involves implications for EFL curriculum design, along with contributions to theory, practice, and methodology.

It is worth mentioning that throughout phases 1 and 2, the instruments and techniques used for data collection are developed in the light of the needs of the research and the specific purposes of the study. Both quantitative and qualitative data collection methods will be used.

2.6 Ethical Considerations

In the context of the study, ethical guidelines proposed by BERA (2004) were considered of great importance because the study involved many tools that required dealing with human participants (i.e. online survey, interviews, questionnaires, and two interventions). These were included in an ethical research approval certificate that was updated and approved by the School's Ethics Committee (see Appendix B).

At all times, information about the research was communicated in a clear, straightforward language, and honesty and objectivity in conducting and reporting it were adopted as standard ethical practice (Miller & Brewer, 2007: p98). During the administration of the research tools, participants were assured that their data would be treated confidentially and anonymously (BERA, 2004) and used only for research purposes. For this reason, pseudonyms were used to replace real names in reporting the results of the interviews (see Chapter 4). Similarly, the data resulting from the two interventions did not include any of the student teachers' real names.

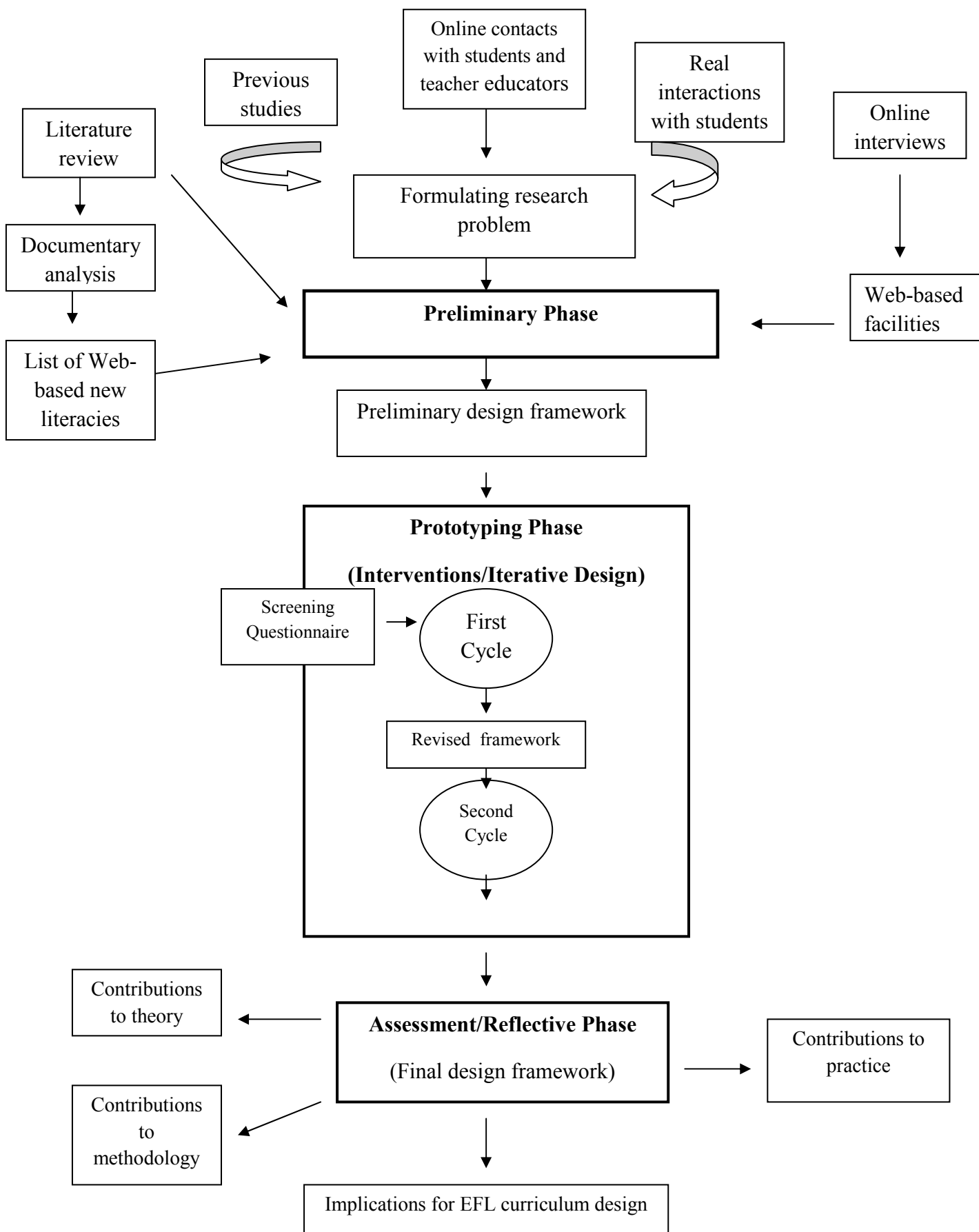


Figure 1: Research framework

Since participants have the right to know beforehand what the researcher is looking for and for what purpose (Pring, 2005), before the two interventions of the study, the objectives and procedures of the research were explained online through informal chat in which participants were given complete freedom to ask about anything they wanted to know. In this regard, power relationships were taken into consideration in the sense that I did not use my authority as a teaching assistant in the institution to force student teachers to participate in the study. Instead, they participated voluntarily after they were purposively selected using a questionnaire. Besides, they were told about their right to withdraw at anytime. This practice, as Pring (2005) argues, is part of researchers' moral responsibility.

Further, social researchers must take into account the effects of research on their participants (Cohen et al, 2007: p58) and should make participants aware of any physical or psychological impact that may result from the experiment (Grix, 2004: p144). Therefore, any potential slight negative effects resulting from using the Internet (e.g., being exposed to offensive material or feeling tired) was clarified to the participants. Besides, during the face-to-face sessions, participants were given regular breaks for refreshment.

In the second intervention (i.e. the blended course) in particular, many ethical issues were considered because face-to-face interactions with EFL student teachers were required. These issues included: (1) not using power relationships to force participants to attend the course telling them about their right to withdraw at anytime for any (or no) reason; (2) briefing participants from the very beginning about the objectives of the course, and what is expected of them while studying it; (3) obtaining consent from participants themselves if all of them were above 18 years old; (4) calling parents to tell them about the nature of the course that their sons/daughters were participating in, and asking them to contact me at anytime once they had any concerns; and (5) asking participants to contact me after the course if they needed any copies of the data emerging from the course.

Phase I: The Preliminary Phase

CHAPTER THREE: LITERATURE REVIEW

This chapter starts the preliminary phase by giving a theoretical grounding for the whole research process, since literature review is an essential component in my DBR research framework (see Figure 1, Chapter 2). The main purpose of the preliminary literature review conducted previously (see 3.1.1, Chapter 1) was to support the problem of the study and contextualise it within existing literature, especially as far as the relevant empirical studies were concerned. However, this chapter will elaborate on the key concepts addressed by the study, which are: (1) EFL teacher education as a context for fostering lifelong learning and the curriculum design process within it; (2) Web-based new literacies as a new concept that connects together both the Web and language; and (3) Web-based facilities as online spaces for language learning.

3.1 EFL Teacher Education and Curriculum Design: Towards Lifelong Learning

3.1.1 Introduction

The goal of this section is to shed light on EFL teacher education as the target context of the study in which many components interact and overlap with each other. It highlights the existence of a complicated, interactive relationship between EFL teacher education as a context on one hand, and the curriculum design process that involves the integration of new technologies and literacies, on the other. Being the means through which the ongoing technologies, new literacies, and new learning/teaching practices can be conveyed to prospective EFL teachers, this context has become more important than ever. Moreover, future English teachers' preparation nowadays needs to be approached from a lifelong-learning perspective that recognises the self-directed learning skills needed for continuous professional development (Johnston & Goettsch, 2000; Richards, 1998).

To improve the quality of teaching as a profession nowadays, teacher education should be prioritised by universities in terms of strategic planning and funding (Coolahan, 2002). Generally speaking, methods used for teacher preparation are sometimes

outdated (Rigby, 1997: p195), and therefore, improving teacher education and professional development becomes necessary. If we want to improve literacy practices for students in the different stages of compulsory education, as the National Board of Employment, Education and Training (1995) implies, we should first expand and improve their teachers' literacy practices by training them in the emerging new literacies. Teacher education programmes are ideal contexts for this training, and hence they play a role in transforming school practice as far as new literacies are concerned (Cervetti et al, 2006).

A problematic issue in teacher education is whether to use the term 'training' or 'education' to describe the pre-service programme, and how both differ from 'teacher development.' In this regard, Edge (1988) and Richards (1990) argue for a shift in perspective from 'training' to 'education' and 'professional development', especially in language teacher education. Edge (1988) contends that what distinguishes 'teacher development' is that it is presented and done by and for oneself; it is not the mission of a specific institution, but is, as Crandall (2000) notes, a continuous lifelong process of growth that involves collaborative and/or autonomous learning. In addition, 'education' is broader in scope than 'training' since the latter involves specific and concrete skills (see also Ur, 1996). Therefore, I prefer to use the term 'teacher education' with pre-service language teacher programmes.

3.1.2 EFL teacher education

3.1.2.1 Rationale, theories, and models

Currently, updating the pre-service EFL teacher education programmes has become important for three main reasons: first, EFL student teachers will confront the challenge of continuously updating their professional knowledge base and teaching skills. To meet this challenge, a dominant practice will be to access online EFL materials and resources that will require new literacy skills. Nowadays, as Ingraham et al (2007: p168) note, though the Web has facilitated education in one sense, it has complicated it in another; it has provided access to a massive and varied amount of information, but the task of managing that critically has become vital. Therefore, the Web may hinder knowledge development because information is comprehensive and unorganised (Warschauer et al, 2000: p49), and consequently, the skills of locating, categorising, and interpreting online information have become key literacies nowadays (Leu et al, 2004). Hence,

training in these new literacies is needed for professional development and autonomous lifelong learning.

The second reason relates to the new literacy practices inside the classroom which prospective English teachers will be involved in. The International Reading Association (IRA) (2002 cited in Cavanaugh 2005) suggests that students have the right to have teachers skilled and effective at using new technologies. This implies a need for providing student teachers with sufficient training in new literacy forms since they are expected to deal with students skilled in using ICTs (Coolahan, 2002). Thus, training in these aspects has become necessary to avoid a potential literacy gap between teachers and students that might hinder effective learning and teaching (Williams, 2005). Being technologically oriented, most young students, in their home environments nowadays, are familiar with new digital, multi-modal literacy forms (i.e. informal literacy) which have been influencing their literacy practices (Lankshear & Knobel, 2008; Lowrie & Clancy, 2003; Pahl & Rowsell, 2005; Warschauer et al, 2000). In Egypt, the number of Internet users has increased drastically from 450, 000 in 2000, to 5 millions in 2005 (Hamdy, 2007). In addition, of the total number of Egyptian schools, 67.9% currently have access to the Internet, and even when access is not possible there, students always have access at home and Internet cafes (England, 2007).

The third reason relates to the English language itself and the situated literacies associated with it. Garay and Bernhardt (1998) argue that it has become urgent to prepare English learners for the new situated and complex communication skills and practices associated with the development of new ICTs. This involves addressing English as used in the real social context and the new workplace, a process that demands the training of EFL teachers towards this end. Unlike Arabic as a mother tongue, English is taught in Egypt as a foreign language detached from its original context. Thus, a wide gap exists between knowledge about English and the functional use of it. This necessitates creating spaces for language practice fostered by the Web, which Warschauer et al (2000) perceive as a means for enabling interactive communication, and thus promoting authentic use of English.

Teacher education is a context where theory and practice are linked together to complement each other (Korthagen & Kessels, 1999). Theories guide teaching practices, and simultaneously, teaching practices inform the formulation and revision of

theories. Roberts (1998) identifies this interactive process in the context of language teacher education as a link between design or model and context.

The construction of teacher education programmes should be guided by a learning theory underlying the contents to be delivered. Some theories and models were developed to guide teacher education. Generally, Roberts (1998: p109) distinguishes two paradigms derived from two opposing traditions: the knowledge-centred paradigm (derived from the positivist tradition), and the person-centred paradigm (derived from the phenomenological tradition). While the first highlights the notion of person as 'input-output system', and thus stresses 'behaviourism', the second highlights humanistic/constructivist perspectives within the context of learner-centred environments. In such environments, teachers' roles have changed with the shift of learning approaches from instructivist to constructivist (Austin, 2004; Coutinho, 2007; French, 1999), and thus many challenges for students have emerged.

Knowledge-transmission pedagogy is still widely used, especially within Egyptian universities, where there are vast numbers of students. However, it is criticised, as Hu (2005) notes, for being sometimes de-contextualised and detached from student teachers' pre-existing knowledge, beliefs, and experiences. Therefore, Johnson (2009) and Richards (2008) report on the current shift from the transmission/behaviouristic models in teacher education to the constructivist/dialogic models that take student teachers further through participation and meaning negotiation into the process of collaborative knowledge construction. This involves a recognition of the vital roles that many contextual, historical, and social factors play in teacher learning.

Contrary to the instructivist approach, the constructivist approach, as Brooks and Brooks (1995) state, stresses the importance of divergence based on the uniqueness of the learner, the relevance of the learning material to learners' lives, and the fact that knowledge is individual and socially constructed based on personal experiences. Thus, it advocates an interactive, experience-based, and student-centred instruction that is enquiry oriented, stressing active discovery, reflectivity, and cooperation (Mintrop, 2001).

In line with these approaches, Roberts (1998) and Wallace (1991) present three teacher-education models: (1) the apprenticeship/craft model, by which less experienced teachers learn through observing the more experienced ones; (2) the applied science or theory-to-practice model, by which knowledge is learned from experts and then applied

in real-world contexts; and (3) the reflective model, by which teachers reflect upon, evaluate, and adapt their practice.

The *reflective model* may help with bridging the gap between theory and practice; as Bain et al (1999), Hill (2000), and Liaw (2003) argue, student teachers' ability to reflect on their experiential and cognitive activities during learning can facilitate the linking of theory and practice, and thus enables them to take on active roles in their professional development processes.

Recently, a *socio-cultural model* has been dominant as a modern approach that takes language teacher education beyond the mere mastery of content knowledge. Richards (2008) identifies this approach as a context for creating conditions for the co-construction of knowledge and understanding through social participation. In this sense, social processes mediate and shape learning and facilitate the production of discourses, artefacts, and resources useful in language learning within a teacher education context (Singh & Richards, 2006). Further, this approach emphasises dialogic enquiry and collaborative activities where student teachers exchange knowledge and experiences, and negotiate meaning through various means that might involve online dialogue (Hawkins, 2004; Lantolf, 2000; Richards, 2008).

According to Richards (2008), the Internet, as a new form of delivery in this context, allows for negotiating meaning and exchanging ideas and reflections through established networks of prospective teachers that cross the regional and national boundaries. Hence, this approach allows for continuous negotiation and refinement of the studied curricula in language teacher-education contexts to address and encompass emerging problems, changing needs, and innovations and modern technologies that might help with improving the teaching/learning process.

3.1.2.2 Contents

In any EFL teacher education programme, teacher's knowledge base is the main component; a solid knowledge base, as Shulman (1987) implies, is a pre-condition to effective teaching. It is always subject to development and redefinition as a result of continuous interaction with new media and literacies (Stover, 2006). Valli and Tom (1988) describe it as "the entire repertoire of skills, information, (and) attitudes" that teachers need to carry out their classroom responsibility. Attempts have been made to determine the main components of an EFL teacher's knowledge base (e.g., Freeman, 1983; Johnston & Goettsch, 2000; Richards, 1998; Shulman, 1987). Three main

categories were identified: content knowledge, pedagogical content knowledge, and knowledge of learners. From these main categories, several sub-categories were generated, ranging from knowledge of educational contexts, content, curriculum, and educational goals and values, to familiarity with new technologies and research methods (Shulman, 1987).

Pre-service EFL teacher education programmes should address certain core aspects: methodology, pedagogy, and teaching practice (Shulman, 1987). A review of literature (e.g., Burns & Richards, 2009; Cullen, 1994; Freeman, 2009) indicates that most of these programmes around the world consist of a methodological/pedagogical component, a linguistic component, and a literature component. As far as the Egyptian context is concerned, Al-Mansoori (2001: pp54-62) concludes that a well-balanced EFL programme should consist of the following basic components: general education, specialised education, linguistics, professional education, and cultural education.

In AUCOE, the case is similar (see also Chapter 1) as the pre-service EFL programme includes: (1) a pedagogical/instructional component; (2) a linguistic/literature component; (3) a cultural component; and (4) a practical/professional component represented in teaching practice (AUCOE, 2010).

3.1.2.3 New technologies and literacies in EFL teacher education

With the current spread of new technologies outside schools and universities (Cope & Kalantzis, 2000; Lankshear & Knobel, 2003; Leu et al, 2009), it has become necessary for prospective teachers to learn about, through, and with technology-based media, to develop a broader understanding of literacy, and to integrate new literacies into their future teaching practices (Cervett et al, 2006). Learning with new technologies means that they should embrace technologically based environments (e.g., websites, discussion groups, and Blogs) as sites for their own development as teachers and learners. In the context of EFL teacher education, student teachers have multiple roles to perform: prospective teachers of English, learners (university students), discourse analysts, and language users (see also Wright, 2002). These pose many responsibilities and challenges, but learning in technologically oriented environments that facilitate language learning and use can help them to face these challenges.

However, there is a noticeable inability of pre-service teacher education programmes to fully prepare novice teachers to effectively use and employ new technologies and integrate new literacies into their professional practice (Cervett et al, 2006; Hagoood,

2000; Milken Exchange on Education Technology, 1999). As far as the AUCOE programme is concerned, this inability is quite evident in the EFL teacher educators' and student teachers' accounts analysed in my pilot study (Abdallah, 2011).

The integration of ICTs, especially the Web and the new literacies associated with it, into pre-service EFL teacher education programmes, has become essential for many reasons. First, the continuous emergence and development of new literacies based on ICTs requires new models of effective instruction (Leu et al, 2004). Second, teacher's competency with ICTs in the classroom requires contextualised knowledge, skills, understandings, and attitudes (McPherson et al, 2007). Third, new technologies and literacies should be a basic component of an EFL teacher's knowledge base (Schrier, 1994; Stover, 2006). Schrier (1994) considers technological sophistication as a desirable characteristic for a foreign language teacher. Similarly, Stover (2006) states that effective English teacher education programmes should provide opportunities that enable student teachers to (1) develop an understanding of teaching and learning processes through interacting with a wide range of verbal, visual, technological, and creative media; and (2) experience current language methodologies and strategies for teaching various genres, visual and medial literacies, and language approaches.

At present, the infusion of new technologies in pre-service EFL teacher education should be an essential practice (Kelly et al, 2004; Snow, 2005). Snow (2005) places it as one of six themes constituting a high quality teacher-education programme. Similarly, Kelly et al (2004) include training in ICTs for pedagogical use in the classroom, personal planning, organisation, and resource discovery as an essential component under the umbrella of the knowledge and understanding central to foreign language teaching. Accordingly, pre-service teachers should learn how to use ICTs effectively and recognise the added value of using them in the language classroom. Learners should use ICTs as support and resources, not as ends in themselves, to develop learner autonomy and work independently outside the classroom context as part of ongoing learning.

McPherson et al (2007) highlight hands-on instruction in effective uses of ICTs to prepare prospective teachers to use the Web and its applications and tools to improve their literacy practices (e.g., communication and collaboration skills) and enhance their students' learning. In line with this, Margerum-Leys and Marx (2004) argue that student teachers need (1) an understanding of the available and proper technological tools for a

particular task and the strategies for using these tools; (2) a knowledge of how to apply general pedagogical strategies to the use of technologies in instruction; and (3) an experience with the technology application unique to their area of teaching and learning and an ability to apply such experience to selecting and using technology.

As for the ‘how’ aspect of this integration, there have been many attempts addressing this in the field of EFL/ESOL teacher education. For example, in the TESOL MA programme at California State University (Snow, 2005: pp261-72), new technologies were integrated to develop information competence and promote greater participation of students of diverse learning styles and personality types. Specifically, this integration involved incorporating training in online and electronic databases into an introductory theory course, and then offering a course on ‘Using Computer in Language Classroom’ where students were introduced to CALL literature. In this course, students were required to develop lesson plans using Web-based resources and design a webpage as a course project. Students reported that Web-based discussions allowed them to develop knowledge at their own pace.

IRA (2005) recommends some ways for teacher educators to integrate new technologies and literacies into their programmes, especially in the language and literacy curriculum. These include: (1) employing effective instructional models (e.g., authentic language models) that use the Web and other technologies; (2) showing pre-service teachers through practice and demonstrations the usefulness of new literacies based on ICTs; and (4) including online resources in the instructional programme.

3.1.3 The curriculum design process in teacher education

The meaning of the word ‘curriculum’ has been a problematic issue in literature since there are many ways of perceiving it. Curriculum in general and the language curriculum in particular, is viewed as (1) a set of processes (e.g., Hall & Hewings, 2001: p1; Richards, 2001: p2) focussing on designing, revising, implementing, and evaluating language programmes; (2) events shaped by the purposes and cross-purposes of teacher, student, subject matter, and classroom ‘occurring in time more truly than it exists in space’ (Eisner, 1985: p302); and (3) totally dependent on enactment (i.e. teaching and learning) as a central process to which planning and evaluation contribute and where the teacher plays a catalyst role for curriculum (Graves, 2008).

With the continuous development of new literacy forms that need to be infused in modern curricula, the issue of curriculum design in pre-service teacher education has

become a matter of major concern, debate, and research in most countries (Coolahan, 2002; Graves, 2008). As argued above, teacher education is the means through which teachers can be equipped with many new forms of literacy. However, the present curricula taught there need to be redesigned to address and encompass such new technologies and literacies (Otto & Pusack, 1996) which involve new practices that reflect the changing nature of how information and text-based materials are presented nowadays. Such new practices, the starting point for a new curriculum, are recognised by Pahl and Rowsell (2005: pp123-4) as 'out-of-school literacies' which include text messaging, surfing the Web, Blogging, and communicating with others in online chat rooms. Hence, the process of language curriculum design is a dynamic, complex process that should be congruent with post-modern, socio-cultural, and emergent views of curriculum and education indicating a mutual, interactive relationship between curriculum theories and realistic classroom practices (Graves, 2008; Pinar, 2003).

Graves (2008) argues that curriculum development involves the three main processes of planning, enacting, and evaluating where curriculum enactment is a central process. It is concerned with classroom experiences, the growth of teachers and learners, and the learning context as the basis of curriculum development considering the evolving relationship between teacher, learner, and subject matter. According to this approach, the classroom, where the curriculum is enacted, is a socio-cultural context that has its own values and norms and what happens there is the core of curriculum. Thus, links between language and context within the process of language curriculum design can be achieved.

The Web is closely relevant to curriculum enactment. Graves (2008) regards the classroom as the main learning community in which the curriculum is enacted as part of the design process. If the target language is used only in the classroom not in the broader community, like the case of English in the Egyptian classrooms as a target-language-removed context, then virtual communities or online spaces linked to the classroom are needed to foster global communication for language learners. Wildner (2000) argues that global communication skills associated with the new technologies and the virtual communities enabled through the Web play vital roles in improving EFL learning. This way, the Web is used as a major resource for fostering EFL learning since it provides a learning environment with a new quality of communicative and intercultural learning (Legutke et al, 2007), and thus, enacts the language curriculum.

3.1.4 Towards lifelong learning in teacher education

Lifelong learning refers to that learning which occurs throughout the person's whole life encompassing adult education and continuous professional development (Longworth, 2003: p11). It is defined as the continuous development of the skills, knowledge, and understanding essential for today's job and personal fulfilment (Stenfors-Hayes et al, 2008). It can either refer to the learning process which spans the whole of one's life, or that learning which is based on real-life experiences (Field & Leicester, 2003). Lifelong learning has always been closely connected with concepts such as the 'learning society' (Friesen & Anderson, 2004). Knapper and Cropley (2000: pp4-5) argue that the shortcomings that the existing education encounters and the new challenges it faces call for the adoption of an alternative approach of learning that should be comprehensive and flexible.

Currently, the process of learning itself has become more important than the learning content. Sometimes self-directed learning can be more effective than formal learning (Knapper, 2004). Modern educational trends, such as the present transition from training to lifelong learning, have guided the adoption of lifelong learning as an educational philosophy.

Present social, economic, and cultural conditions, the competitive job markets whose needs have been changing, the globalisation of trade, and some rapid developments such as the diffusion of ICTs, point to the importance of fostering lifelong learning, especially in teacher education contexts (Field & Leicester, 2003; Knapper & Cropley, 2000; Longworth, 2003; Ryan et al, 2000: p11; Stenfors-Hayes et al, 2008). More specifically, pre-service teacher education is regarded as the best context to foster lifelong learning skills (Knapper & Cropley, 2000: p4) because future teachers who are able to continue learning and develop themselves professionally are needed nowadays. Therefore, teacher education nowadays should target lifelong learning more than any specific content.

Lifelong learning has become the main goal and the target outcome of learning at all educational levels where teachers may help young students to develop lifelong learning skills (Dunlap, 2002: p300; Field, 2000; OECD, 1996; Smith & Spurling, 1999). New ICTs are the means through which lifelong learning is fostered (Dunlap, 2002: p300; OECD, 1996). ICTs have been expanding the knowledge base presenting new ways of providing, assessing, and disseminating knowledge. They require new skills and

competencies that encourage adaptability, flexibility, self-reliance, teamwork, and innovation as qualities for the contemporary workplace (Coolahan, 2002). Therefore, Longworth (2003: p5) argues that the explosion of information and knowledge propagates lifelong learning as a global phenomenon. Nowadays, the traditional idea of establishing a 'learning society' (Hughes & Tight, 1995; Hutchins, 1970; Ranson, 1998) has become more urgent than ever. New ICTs provide both the rationale and the means for establishing it (OECD, 1996: p213).

Candy (1995) and Knapper and Cropley (2000: p4) argue that lifelong learning skills should be placed at the heart of every undergraduate degree programme. Higher education can make lifelong learning a reality by linking itself with further education (Marks, 2002), and by providing adults with education and/or training in a flexible and ongoing fashion (Ryan et al, 2000: pp9-10).

Lifelong learning is closely attached to language and practices of continuing professional development (Field, 2000: p118), and consequently to teacher education and training that should encourage continuous learning despite any career frustrations (Smith & Spurling, 1999). Continued professional development, especially in TESOL, is a need felt by all teachers regardless of their level of experience (Johnston et al, 2005: p54). Hence, it has become important for teacher education institutions to modify their courses accordingly. Criticising the traditional model dominant in EFL teacher training programmes, Williams (1994) proposes that studied courses should be developmental, as the aim should extend to facilitating lifelong learning by helping teachers towards continuing their professional development as a lifelong process. This continuing career professional development that teachers should engage in to review and renew their knowledge and skills is something that the nature of teaching as a profession demands (Day, 1999).

In order for lifelong learning as part of professional development to occur, the effective use of new technologies is an essential requirement (Longworth, 2003). Lifelong learning is described as having an eclectic, flexible nature, and therefore, using the Web has become relevant since it can effectively address this nature (Friesen & Anderson, 2004). Using the Web and its facilities to foster lifelong learning, and hence professional development, has been a recurring theme in literature (e.g., Friesen & Anderson, 2004; Linn, 1996; McLoughlin, 2003; Rigby, 1997). Linn (1996), for example, identifies some features of the Web essential for creating autonomous lifelong

learners in an online instructional setting, such as: (1) helping students to make effective decisions, create new ideas, and recognise when, how, and why they learn new material; (2) helping them to diagnose personal goals, strengths, and limitations; (3) providing opportunities for independent projects tailored to personal goals within an academic discipline; (4) encouraging students to take responsibility for their own learning by setting realistic goals for themselves, monitoring their own progress, reflecting on their understanding, and seeking guidance from others; (5) creating activities that permit students to practise these skills; (6) making disciplinary knowledge, practice, and culture visible to students through autonomous learning activities that include linking ideas, comparing alternatives, reflecting on progress, critiquing ideas with guidance; and (7) structuring courses in a way that takes advantage of the social nature of learning and social contributions to learning by engaging students in collaborative practices.

3.2 Web-based New Literacies: Expanding the Concept of Literacy

In this section, I present the term ‘Web-based new literacies’ as a more specific label that involves all those new literacies which are based on the Web and which, at the same time, are necessary for ELL in this era. Hence, there will be a detailed theoretical argumentation reinforced by some empirical studies on Web-based new literacies. The argument proceeds gradually from the general concept of literacy, to the specific concept of Web-based new literacies with specific reference to Web-based reading comprehension skills and strategies, which are attached to both language learning and the Web. The argument paves the way for a theoretical framework that relates Web-based new literacies to the context of ELT/ELL.

3.2.1 Contextualising the concept of literacy: Literacy development and new literacy practices

A common idea is that literacy simply means the ability to read, write, and calculate. Though this conception is too narrow to encompass all the literacy practices of today (Wasik, 2004: p1), it is still dominant as reflected in how some pre-service teachers define literacy (Richards & McKenna, 2003: p19). Leu (2000a), Leu and Kinzer (2000), and Leu et al (2004) indicate that literacy is a dynamic and complicated concept that has encountered many changes throughout the course of human history and language development. This is depicted in the varying functions, attitudes, forms, channels, meanings, and uses attached to it in different contexts. Historically, literacy apparently

meant different things depending on certain socio-economic conditions and prevailing socio-cultural perspectives. The changing meanings of literacy have been a direct result of a variety of forces influencing the development of new technologies and the literacy insights they prompt (Tyner, 1998: p25).

In earliest societies, literacy was simply perceived as a way to record land, crops and business transactions (Leu, 2000b). With the development of human activities, it began to take other forms, and thus, was perceived in different ways. Tracing its development, Leu et al (2004) note that literacy, at certain times, took on a socio-political sense by becoming a way to communicate common experiences among the oppressed through a special symbolic system. At other times, it took on a religious sense with the need to spread religious dogma. In medieval Europe, for example, the Christian church used literacy as a vehicle to enforce a common religion (Leu & Kinzer, 2000: p112). Similarly, in the Arab history, especially during the pre-Islamic and Islamic periods, literacy took both oral and written forms to spread holy books and poetry among people. People then were leading Bedouin lives in which trading was the main source of income, and therefore, there was a need to write Arabic documents to record financial transactions (Barakat, 1993). The most evident manifestation of literacy in the Arab culture at these times was the excellence in poetry, especially using metaphors as a means of expression.

Three major human contributions have drastically influenced literacy: the invention of writing, the invention of print, and the emergence of the Internet and ICTs in general. Before writing, what could be called broadly 'literacy' in fact took an oral form drawing on the person's ability to communicate their ideas to others. With the invention of writing, the concept took a new form which, as Ryder (1996) contends, gave birth to history by enabling the precision of recorded memory and representing and archiving human knowledge. Moreover, the written word helped with establishing stability of language. Literacy has been an essential component characterising the modern age, which has become an age of reading and writing. Book learning changed the nature of basic education throughout the West. Educators perceived it as a means through which they could foster morality, patriotism, and citizenship (Ryder, 1996).

An important note in this regard is that when a new technology of literacy appears, it is usually met with caution, fear, and sometimes rejection, from those doubting the benefits and/or improvements it might bring (Crystal, 2001). For example, it might be

surprising for us nowadays to learn that Socrates (according to Plato) objected to using writing as a new medium of communication, considering it an insignificant waste of time that fostered ignorance and led people away from the proper behaviour (IRA, 2000); or that in the fifteenth century, the arrival of printing was widely perceived by the Church as an invention of Satan that was leading to a breakdown of social order as a result of disseminating uncensored ideas (Crystal, 2001: p2). In the same way, it might surprise future generations that the Internet, while being adopted on a wider scale for educational purposes, was attacked by many scholars (e.g., Postman, 1995; Stoll, 1995), who blamed it for impoverishing the English language and the learners' basic literacy skills.

At present, continuous endeavours are being made to redefine the basic concept of literacy, which revolves around reading and writing, to enable it to express new developments in ICTs (Warlick, 2004: p17). The changing concept of literacy is closely related to the idea of what it means to be literate. This has taken several forms depending on the nature of the innovation emerging and the specific requirements it needs. Eagleton and Dobler (2007: pp45-46) note that with the advent of the printed press and the production of bibles, people needed to be sufficiently literate to read the text. Hence, the expected literacy practices were compatible with the nature of the media, the socio-political context of ordinary people, and their specific cultural purposes and literacy needs. The advent of new ICTs, whose impact on literacy and culture was equated with that of the print revolution (Rassool, 1999: p3), has caused our expectations regarding being literate to change to include proficiency in locating, understanding, and using information on the Web.

The Web has made rapid transformations in literacy tools and practices. In particular, four revolutionary features of ICTs have enabled those transformations: interactive written communication; the creation of hypertexts; multimedia creation; and the global form of many-to-many communication (Ware & Warschauer, 2005). In other words, learning how to use language effectively is no longer the only goal at a time when gathering, analysing, and using information resources to answer questions and solve problems have also become key literacies (Kasper, 2000).

3.2.2 Approaches and perspectives

Literacy means different things to different people, and hence, scholars have different perspectives (Coiro et al, 2008: p34). A literature review reveals the existence of two

main approaches: the traditional cognitive/psycholinguistic approach, and the socio-cultural approach (which I will call the modern approach). The modern approach (e.g., Street, 2009; Gee, 1996; Barton & Hamilton, 1998: pp3-22) challenges the autonomous model of literacy perceiving new literacies as situated social practices and as new conceptions of reading/writing emerging with ICTs.

By highlighting the autonomous model, as Lankshear and Knobel (2003) argue, the cognitive/psycholinguistic perspectives dominating reading and writing instruction disregarded the socio-cultural and contextual factors influencing literacy practices. This model suggests that literacy is a set of unified, universal, neutral, and value-free skills and cognitive practices the acquisition of which is virtually devoid of any contextual features or social connections (Au, 2006: p38; Knobel, 1999; Street, 1995). As a reaction, sociological approaches to literacy were developed by New Literacy Studies (NLS). NLS starts out from what people do in their lives to understand and examine their social practices through the study of particular events (Barton, 2009). This represents a new tradition in considering the nature of literacy perceiving it as a social practice (Street, 2003).

This more sociological perspective has emerged in many forms, such as the 'ideological/ethnographic approaches' versus the 'autonomous model' (Street, 1984, 1993, 1995; Street et al, 2008), the 'ecological/ethnographic approaches' (Barton, 2009; Barton & Hamilton, 1998) and the 'socio-cultural perspectives' (Gee, 1996, 2000), all of which share the common idea that literacy is best understood as a set of situated social practices, and not as a neutral, universal construct detached from the social reality.

From an ethnographic perspective, Street (1995: pp1-9) argues for the social nature of literacy proposing the ideological model as an alternative mindset to the autonomous model. His ethnographic work in Iran (Street, 1984, 1993) gave birth to an understanding of the ideologically situated nature of literacy. By disregarding notions of literacy skills, rates, and levels dominating contemporary discourse about literacy, and by approaching literacy, instead, as a social practice, he found a way of making sense of variations in the uses and meanings of literacy in the contexts he was investigating (Street et al, 2008).

Consistent with Street's approach, Barton and Hamilton (1998: pp3-22) present an ecological/ethnographic approach according to which literacy is also viewed as a set of

situated social practices related to a certain cultural context and locally associated with daily activities within a community; in this sense, particular practices have different meanings in different domains of life (Barton, 2009). Using an ethnographic methodology in their study on local literacies, Barton and Hamilton (1998) managed to provide a rich textual account of the local literacy practices, with a special focus on the local community at Lancaster. They drew a distinction between ‘literacy events’ (i.e. activities where literacy has a role), and ‘literacy practices’ (i.e. regular repeated activities) suggesting that literacy practices are fluid, dynamic, and changing. Therefore, new literacies are frequently required through processes of informal learning and sense making. Thus, literacy becomes a community resource rather than a property of individuals.

From a socio-cultural perspective, Gee (1996, 2000) argues that literacy is not a single construct; instead, it consists of many literate acts embedded in the social practices of a certain culture and is based on the various social practices cultures use to communicate which lead to ‘Discourses’. Gee (1996: p127) identifies ‘Discourses’ as ‘language plus other stuff’ which means "forms of life which integrate words, acts, values, beliefs, attitudes and social identities as well as gestures, glances, body positions and clothes", suggesting that there are many new literacies that need to be recognised and valued in any discussion of literacy.

Lankshear and Knobel (1999, 2006) view literacy as situated social practices contextualised in a certain culture. They put forward the concept of ‘new literacies’ in a series of publications (e.g., Lankshear & Knobel, 2003, 2006) where they criticise contemporary curricula for their inability to cope with complex digital literacies emerging very rapidly. They identify two categories for the label “new literacies”: (1) literacies associated with new ICTs (i.e. the digital electronic apparatus), and (2) literacies that are comparatively new to the formal study of literacy (i.e. to being recognised as literacies).

Through e-mail exchanges, Lankshear and Knobel (personal communications, 2008a/b) explained their position with regard to new literacies, contending that their main interest is in what people do and how they negotiate meanings within the contexts of shared interests and purposes, including classrooms, where people engage in doing things and try to make sense of what they do. They state that their purposes and interests are less grounded institutionally and less concerned with reaching pragmatic ‘solutions’ to

classroom situations. Instead, they want classrooms as well as research and theory in literacy to cope in responsible ways with a changing world. Further, they emphasise the significance of the ‘mindset’ that one brings to thinking about contemporary literacies in formulating one’s approach to new literacies (see also Lankshear & Knobel, 2003, 2006).

In addition to ‘new literacies’, many other labels and approaches have emerged with new ICTs to express the relationship between literacy and new technologies, and to represent the new forms of literacy; these include: ‘multiliteracies’ (The New London Group, 1996); ‘new semiotic contexts’ (Kress, 2003; Lemke, 2002); ‘multimodal contexts’ and ‘multimodal literacies’ (Hull & Schultz, 2002; Jewitt & Kress, 2003); ‘critical literacies’ and ‘media-literacy perspective’ (Tyner, 1998); and ‘electronic literacy approach’ (Shetzer & Warschauer, 2000).

The New London Group (1996) presents the construct ‘multiliteracies’ to capture changes taking place in two dimensions central to literacy: the multiple modalities of communication in a world dominated by ICTs, and the increasingly apparent diversity of culture and language within a global community. In the light of this approach, reading, writing, and communication on the Internet may be viewed as including a set of ‘multiliteracies’ which emerge as individuals from different cultural contexts encounter one another within different communication technologies (Leau & Kinzer, 2003). Pioneers in this group assert that curricula should be updated to incorporate the new digital input and address these changing multiliteracies. Consequently, learning in schools needs to be organised around a much wider concept of communicative practice and representation than this currently presented to learners around the world (Cope & Kalantzis, 2000).

Kress (2003) and Lemke (2002) view literacy in terms of ‘new semiotic contexts’ encountered in new media, with a special focus on the processes of interpreting the text on the Web as a digital environment involving several elements that the reader interacts with. Hypertext is particularly important here as it has the potential to realise new interactions between word, image, and sound (Jewitt, 2006: p12) in a screen-based reading.

‘Multimodal literacy’, first introduced by Jewitt and Kress (2003), is a new term that encompasses all the different new ways in which meaning can be created and communicated. The multimodal character of new technologies requires a shift from

thinking about literacy as a matter of ‘competence’ to perceiving it as a ‘multimodal design’; the message conveyed by new technologies involves several modes all of which contribute to its overall meaning (Jewitt & Kress, 2006: pp8-12). Similarly, Hull and Schultz (2002) put forward arguments about ‘multimodal contexts’ to which literacy is differentiated. Using research on literacy outside of school, they challenge how we think about literacy inside of school in an attempt to bridge the divide in the literature between formal education and the many informal settings (e.g., homes, community organisations, and after-school programmes) in which literacy learning flourishes. This is consistent with the gap arguments made by Buckingham (2007), Schultz (2002), and Ware and Warschauer (2005), and the studies of Bulfin and North (2007) and Snyder et al (2008) on the digital literacy practices that should be integrated into the school curriculum (see Chapter 1). In an attempt to link social literacy practices with multimodality, Street (2008: p6) advocates an ‘ideological model’ of multimodality according to which it is possible to view multimodal texts as ideological; in the same way as we view literacy practices as situated within power relations, multimodal texts could be understood as themselves imbued within the social context from which they were created, and subject to the same interrogations as literacy texts.

Tyner (1998) suggests a ‘media literacy perspective’ to address new literacies required by new media forms that is closely aligned with ‘critical literacies’. It is suggested that new critical literacies will be required to enable one to understand how to read between the lines the information that involves different cultural assumptions (Leu et al, 2004), especially when individuals and corporations holding certain commercial, political, and economic motives shape the information they provide (Kinzer & Leander, 2002; Muspratt et al, 1998). Hence, it is impossible to discuss literacy without considering who is using it and for what purposes. This involves a need to understand the motive behind the message and to critically evaluate these messages in terms of accuracy, validity, and authenticity (Castek et al, 2007: p37).

Shetzer and Warschauer (2000) develop an ‘electronic literacy approach’ to network-based language teaching, dividing electronic literacy skills into three overlapping areas: communication, construction, and research. This approach is based on several assumptions: (1) it assumes that becoming literate is more than learning how to decode and write letters and words; it is a matter of mastering processes that are deemed valuable in particular societies, cultures and contexts; (2) literacy is a shifting target, and therefore, we have to prepare students for their future rather than our past; (3) there

is not just one literacy, but many kinds of literacy, depending on the context, purpose and medium. In this sense, reading and writing online may be similar to reading and writing in print, but the two literacy contexts are different; (4) an electronic literacy framework does not look upon computers from a technical perspective, but it considers how people use computers to interpret and express meaning.

Recently, much research has been driven by transformations in the forms and meanings of literacy; researchers, teachers, and teacher educators are increasingly required to consider the new socio-cultural context in which literacy is practised (Kellner, 2003; Leu et al, 2004). Many studies have focussed on the multi-modal and multi-dimensional nature of literacy nowadays, and the new resulting literacy practices (e.g., Eryaman, 2007; Siegel et al, 2008; Walsh, 2007; Walsh, 2008). For example, Walsh (2008) examines evidence from classroom research to analyse the nature of multimodal literacy, which is currently needed for reading, viewing, responding to and producing multimodal and digital texts. Examples of students' engagement in multimodal literacy are presented to demonstrate how classroom literacy practices can incorporate the practices of talking, listening, reading, and writing together with processing the modes of written text, image, sound, and movement in print and digital texts.

3.2.3 Web-Based new literacies: A new theoretical framework

3.2.3.1 Redefining literacy in the 21st century

The process of redefining literacy should involve widening the scope of traditional concepts like reading and writing to encompass new functions, aspects, and strategies (Warwick, 2004). In this regard, I think that the process should involve the following focal points:

- 1) Revising old definitions to encompass ICTs, and thus, new dimensions not considered before;
- 2) Considering the new skills, strategies, and competencies associated with being literate that learners need to develop;
- 3) Focusing on the new electronic environment and the socio-cultural contexts in which learning takes place; and
- 4) Considering the changes occurring to the teaching-learning process itself.

The emerging new technologies, and the subsequent literacy practices attached to them, have produced different labels that express the new forms that literacy has been taking

in the information age: 'digital literacies', 'visual literacies', 'multiple literacies', 'computer literacies', 'Web literacy', 'e-literacies', all of which can be included under the more general label of 'new literacies'. To narrow down the focus, I will use 'Web-based new literacies' (Abdallah, 2010b), a type of new literacies related to using the Web (see definition in Chapter 1). Now that the Internet is a broad concept that tends to be very technical, I prefer to use 'Web' as the main component and direct application of the Internet.

My argument here is based on a new literacies theoretical framework that identifies literacy as the new skills, strategies, social practices, and dispositions associated with the range of global online communities and Web-based applications (see Coiro et al, 2008). Digital literacies might be relevant here, but I prefer to place my work within a 'new literacies' framework rather than a 'digital literacies' framework. Based on Coiro's (personal communication, 2009) argument, while digital literacies focus on relatively stable aspects of reading and writing with electronic texts (e.g., software programmes) that are on the computer (but not necessarily on the Web), new literacies are more associated with the constantly changing construct of 'literacy' as influenced by a range of ICTs, especially the Web.

An interactive connection exists now between new technologies, especially the Web, and literacy resulting in a new, multimodal context of literacy. Being aware of the potential improvements it might bring to the learning process, Castek et al (2007), Friedman (2005), and Leu et al (2008) consider the Internet the 'defining technology' for literacy, learning, and reading in a digital, socially-networked world in which more than one billion individuals have gone online (Leu et al, 2008). It is a defining technology in the sense that no other technology at present has had the same effects on literacy.

These effects can be summarised as follows: (1) the Internet continuously brings new skills and strategies for dealing with information (Leu, 2004) that influence literacy practices in a community, and hence, such practices need be continuously improved; (2) it provides many facilities that allow people to communicate with each other; this makes it "an indispensable resource for literate people to share what they write" (Beall & Topp, 2000); (3) it has brought, as Coiro et al (2008: p20) notice, new dimensions to both the speed and the scale of change in literacy, forcing us to directly confront the issue of new literacies emerging from the interaction between new ICTs and literacy;

(4) it is the first technology for literacy that permits the immediate dissemination of literacy to every person online (Leu et al, 2008) by enabling them to connect to it through a single link.

Specific investigation into new forms of literacy based on the Web is provided by Aly (2008) and Serdyukov and Stvan (2001). Aly investigated the usefulness of some websites for EFL learning by evaluating them using eight criteria (authority, purpose, coverage, currency, objectivity, accuracy, technical aspects, and usefulness for EFL teachers and students). Similarly, Serdyukov and Stvan were concerned with generating objective criteria for evaluating ESL/EFL online educational resources by conducting an analysis of 22 ESL/EFL websites based on 99 characteristics. The study concludes with some implications for the structure and organisation of websites and some guidelines for creators of ESL/EFL websites.

Castek et al (2007) argue that technology transforms literacy, and literacy transforms technology, a mutual interaction that leads to the emergence of new literacy and learning tools that require newer literacies to use them effectively. This relationship is quite evident in the new forms that reading and writing have recently taken (e.g., online reading, surfing the Web, and writing e-mails) that should be considered because, as McNabb et al (2006: p4) argue, technology has frequently played a dominant role in defining what reading and writing skills have been considered important.

The fact that new literacies are continuously changing in response to the emergence of new ICTs, which have been developing all the time in terms of form and function (Leu, 2000; Leu et al, 2004; Leu et al, 2005: p4), imposes situationality or contextuality in the study of literacy; it is no longer possible for anyone to be fully literate in every technology of literacy available online (Coiro, et al, 2008: p24). Besides, it might be difficult to identify a set of universal literacy skills that can be valid for all places, societies, educational contexts and at all times (Au, 2006: p38; Knobel, 1999; Street, 1995).

The situational or contextual understanding of new literacies drives us to suggest that a set of new literacies might be more important in a certain context than in another. More specifically, some students in a certain context may need to develop certain new literacy skills regarded by society as vital for everyday activities and real-life communication, while other students in another context might need a different set of skills because their

society is devoted to equipping students with high-level abilities and skills that cope with the political agenda.

3.2.3.2 TESOL under the Web

The English language is relevant within this new framework since the Web has been recently influencing the ways in which people read, write, and use language for interaction (Kern, 2000: p238). It introduces, as Crystal (2001) notes, new forms of communication in English, both oral and written. This influence is evident in the following aspects: First, Web-based e-mail that most people use requires them to rely more on electronic writing. Composing e-mail messages involves many new aspects, such as checking spelling, and copying and pasting words and sentences. Second, online chat, increasingly used nowadays, is continuously influencing the English language by, for example, introducing new abbreviations used to save time. Third, much reading in English is done online, and thus new skills and strategies are increasingly required for coping with the Web environment (e.g., hyperlinks, icons, and hypertext) that make reading online texts much more complicated than reading print-based texts.

Web-based new literacies involve a range of skills and competencies that place demands on TESOL, especially because a large amount of what students do on the Web is reading, a case in which literacy and technology converge (Schmar-Dobler, 2003). Online reading differs from offline and book reading because the Web provides new formats, purposes and/or ways to interact with information that can confuse people used to printed texts (Coiro, 2003a: p458). The report on reading comprehension by the RAND reading study group (2002) acknowledges that accessing the Web makes large demands on individuals' literacy skills requiring readers to have novel skills (Henry, 2006: p615). Besides, the problematic issues of quantity, quality, and authenticity of online material written in English point to the essential need for teaching online research skills and providing guidance in critical evaluation (Kern, 2000: p231). Thus, new literacies of reading on the Web become, not merely a technological issue of a technical reality, but also a core language issue that involves many linguistic, social, and communicative dimensions.

3.2.3.3 New literacies of Web-based reading

Although they share some common features and strategies, such as activating prior knowledge and synthesising information (Eagleton & Dobler, 2007: p36), print-based reading and Web-based reading are not the same. From a new literacies perspective, the

skills and strategies associated with traditional, print-based reading are still necessary to read and learn online, but are not sufficient alone since the nature of online reading comprehension is different (Coiro & Dobler, 2007).

Online reading is a complicated process that requires knowledge about new things such as how search engines work and how information is organised within websites (Coiro, 2005: p30). Thus, those who master the skills and competencies necessary to read books are not necessarily competent online readers. Empirically, Coiro (2005: p30) noticed that some students already skilled at reading books were struggling with finding information online wasting much time without reaching their target. For example, they were lost on the Web moving from one webpage to another without locating the information they needed to complete their assignments, a conclusion also reached by my pilot study (Abdallah, 2011).

By the same token, Leu et al (2007) conclude that video recordings for some adolescent readers while reading online suggest that readers who struggle with offline materials may not struggle with online materials to the same degree as long as they have the skills and/or strategies essential for online reading comprehension. They conclude that isomorphism does not exist between offline and online reading comprehension because if they were the same, high-achieving offline readers would always be high-achieving online readers and vice versa.

Consequently, it is essential to understand the differences between online reading and offline or print-based reading which usually revolve around: (1) environment or medium; (2) nature; (3) types of the cognitive processes involved; (4) the complex nature of the texts readers interact with; (5) the additional new skills and/or strategies that online readers need in the Web environment.

The environment, medium, and ways of navigation of print and hypertext are completely different. While both environments typically provide supportive navigational features (e.g., a table of contents), the actual content of hypertext is hidden beneath multiple layers of information not viewable with traditional previewing procedures such as rapidly going through the pages of a printed book (Coiro & Dobler, 2007). Besides, the Web itself provides many features, such as hyperlinks, which facilitate the navigation process to the readers.

The construction of meaning as a cognitive process is another source of difference. Online readers have choices as they navigate through many websites and media, and therefore, they personally construct their own meaning and understanding out of this navigation process. Offline readers, on the other hand, read the texts already constructed for them. Thus, the construction of meaning during online reading comprehension is much more complex than it is the case with offline reading comprehension (Leu, et al, 2009).

Reading on the Web therefore adds layers of complexity to an already complex process (Kern, 2000: p223). This complexity is caused by the fact that comprehension on the Web requires the orchestrating of a number of additional cueing systems (e.g. operational, organisational, and multimedia cues) plus knowledge of informational text structures placing a heavier cognitive load on learners (Eagleton & Dobler, 2007: p31). This is shown by studies of how textual differences influence comprehension, which indicate that both children and adults have more difficulty reading informational texts than reading narrative texts (e.g., Biancarosa & Snow, 2004). The difficulty posed by informational texts becomes more challenging when readers are to define a specific task, search for information, and select the resources themselves.

The nature of the text itself is different as online texts are more complicated than linear, printed texts. Online texts appear in types new to the readers, which Coiro (2003a/b) identifies as nonlinear, multiple-media, and interactive texts, to clarify the message transferred. Readers online are provided with options like clicking a hyperlink to access further details on a particular word or item. Now that online texts involve new forms and ways of arranging and structuring textual material introducing new challenges for readers, especially second and foreign language readers (Anderson, 2003: p4), higher levels of inferential reasoning and comprehension monitoring strategies are demanded.

There are many new skills and strategies needed within an online reading context. Leu et al (2008: pp322-37) detail some of these skills and strategies as follows: (1) Online reading is usually initiated by a pre-reading question or query that guides the reading process, something not necessarily needed within a print-based reading context; (2) locating information online is another aspect of online reading comprehension that requires new skills (e.g., using a search engine, reviewing returned results, and quickly reading a webpage to locate links to required data). Locating information may create a bottleneck for the subsequent skills of online reading comprehension in the sense that

those who possess those online skills necessary to locate information can continue to read and solve their problem, while those who do not possess them cannot; (3) During critical evaluation, a unique set of skills are required. Whereas critical evaluation is important when reading offline, it is perhaps more important while reading the Web where anyone can publish anything. Therefore, it is vital to identify to what extent the online information is reliable. The unique nature of the Web, as a source of information that differs from traditional resources, has been thoroughly explored, mostly by librarians, who have highlighted the need for greater critical evaluation of Web-based resources (see Barker, 2004 and Kirk, 1996, for examples of evaluative schemes).

Reading online is a complicated process that is not simply defined around the encoding of online texts, or just the purpose, task, and context. Instead, as Leu, et al (2008: pp332-36) argue, online reading comprehension is also defined by a process of self-directed text construction that occurs as readers navigate on their own through an infinite informational space to construct their own versions of texts encountered online.

With the dominance of the Internet as a teaching/learning medium and the subsequent result that information gathering has become, perhaps, the most widely used application of the Web, it is surprising that there is still a lack of a research-based understanding of the strategies needed to successfully understand and read information online (Coiro, 2009; Coiro & Dobler, 2007). Some few studies were conducted to examine online reading (e.g., Coiro, 2007; Coiro & Dobler, 2007; Leu, 2007). New literacies required for dealing with information and material available online still need further investigation.

Many new reading sub-skills and strategies have emerged to express the new online processes. In this context, Leu (2002) suggests that developing more critical reading skills within networked ICT will be an important aspect of the new literacies to face the challenge ahead. Clarifying the nature of the challenge we have today, Eagleton and Dobler (2007) suggest that in order to be Web literate, we should meet the demands of the Web, which are associated with reading by acquiring new skills and strategies.

3.3 Web-Based Facilities: New Possibilities and Spaces for Language Learning

The Web should be conceptualised, not only as a purely technical innovation that marks a revolution in computer and communications systems, but also as a means of learning and a technology of literacy that has a potentially powerful role in language learning. Hence, this section tackles the Web and its facilities in terms of significance and implications in ELT and ELL. This involves giving a background on some Web-based facilities that can mediate and improve language learning.

3.3.1 The prominence of the Web

When the Internet or the Web began to spread for public use, a series of metaphors, such as ‘cyberspace’, the ‘information superhighway’, the ‘online community’, the ‘electronic library’ and the ‘digital revolution’ (Teeler & Gray, 2000: p1), were devised to describe its nature and functions. With the changing nature of the Web from a read-only reality (Web 1.0) into a read/write reality (Web 2.0), multiple facilities, tools, and functions have come to the fore to mark a shift to a new generation of the Web that enables a wide range of learning possibilities, especially within language learning contexts (Erben et al, 2009; Richardson, 2009). Consequently, scholars (e.g., Coiro et al 2008) regard the Web as the defining technology of literacy in the 21st century.

Many factors, such as the development of easier connections, the more user-friendly software being used, and the cheaper access, made the Web open to everyone, from young children to professionals in all fields (Dudeney, 2000: p1). These factors have been increasing the number of Internet users to the extent that in 2008, more than one billion individuals in the world became online (Leu et al, 2008).

3.3.2 Web-mediated learning

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 flaming¹, 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 education² 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 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).

3.3.3 Web-based facilities that foster language learning

Some Web-based facilities have been investigated in terms of their relationship with education and ELT and the affordances that both synchronous communication tools (e.g., chat rooms), and the asynchronous ones (e.g., e-mail), have for learners. Synchronous communication takes place while people are simultaneously online, as it

¹ ‘Flaming’ refers to sharp criticism or dry comments that distress or annoy other users.

² ‘Higher education’ here refers to universities, high colleges and teacher education institutions.

requires the presence of all participants at the same time during the communication process. Asynchronous communication, on the other hand, occurs when online interaction does not happen simultaneously between two parties (Aggarwal, 2000; Clarke, 2004; Glazer, 2004; Pritchard, 2004: p10; Warschauer et al, 2000).

One of the important language aspects that the Web can enhance is writing or composition. In this regard, Trokeloshvili and Jost (1997) develop a rationale explaining the important role the Web plays in teaching EFL writing composition, grounding their argument on the premise that any Web-based instruction should consider both students' needs and teacher's goals, and that successful writing springs 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.

Generally, from both interactionist and socio-cultural perspectives, communication and collaboration are beneficial for language learning to occur (Erben et al, 2009: p56). Online communication, in particular, has become an important component of language learning fostered by the Web. This importance has increased in the learning context as, with the popularity of the Web, much attention has been paid to the use of computer-mediated communication (CMC) in learning, particularly in distance education (Curtis & Lawson, 2001) and language learning (Erben et al, 2009; Smith & Baber, 2005; Warschauer et al, 2000). Research indicates that CMC is a promising tool for language learning because it allows learners to interact with native speakers (Toyoda & Harrison, 2002) to negotiate meanings (Blake, 2000), and thus, improve the quality of their written and spoken language (Sotillo, 2000). This, in turn, helps to shift language instruction towards a more student-centred, constructivist perspective that promotes higher-order thinking skills (Ducate & Arnold, 2006).

Both synchronous and asynchronous types of online or CMC communication can be used for language learning purposes since each has its own advantages, disadvantages, and uses. Research on foreign language learning (e.g., Glazer, 2004: p38; Meunier, 1994; Warschauer, 1997) indicates that electronic discussions can encourage learners to construct knowledge collaboratively, and can be effective for online tutoring where two-way communication is continual. Online chat, whether through voice, text, or video, is a famous form of this alive communication (Clarke, 2004).

Asynchronous tools enable communication and collaboration over a period of time through a "different time-different place" mode, and thus, allow people to connect together at each person's own convenience (Ashley, 2003). Thus, such tools are useful and flexible: useful for sustaining dialogue and collaboration over a period of time allowing people to exchange ideas and viewpoints in a relaxed fashion, and flexible in the sense that they provide people with resources and information that are instantly available and accessible, day or night, involving people from multiple time zones. Educationally, asynchronous communication tools are valuable when, for example, a student desires to reflect on a solution describing it in detail to teachers or other peers (Glazer, 2004: p38). Further, when carried out through e-mail, it holds many advantages: Messages can be sent simultaneously to a large number of people; one can choose when to read messages; one can reply to all the people who have sent the original message; and the original message can be forwarded to other people (Clarke, 2004: p175). In TESOL and TEFL, many studies have addressed CMC forms, such as e-mail and chat, especially in the context of writing performance (e.g., Cummings, 2004; Doering & Beach, 2002).

E-mail, a very common Web-based application, is regarded by educators as an effective tool that promotes both intercultural communication and language learning (Stein & Stein, 1995: p3), especially for those students who are too timid or shy to participate in face-to-face interaction (Kroonenberg, 1994/95). It can positively help students to bridge the gap between theoretical knowledge and practical application in language learning, especially in an English non-speaking community like Egypt where students study English theoretically with no direct applications in their everyday lives (Mekheimer, 2005). When they contact native speakers, students will find reason for using English, and thus they become involved in realistic situations that develop their communicative and thinking skills (Kroonenberg, 1994/95). Moreover, the asynchronous nature of e-mail enables students to contemplate, review, and edit what they write before sending it. This in part improves students' learning, writing, and communicative use of the English language.

From a language learning perspective, both Web-based e-mail and online chat are means through which real communication in English can be fostered, especially in non-English speaking environments. In this regard, Singhal (1997) highlights many benefits that EFL learners might gain for developing their communication, writing, and thinking skills as a result of using these two facilities. To a great extent, they compensate for the

lack of real-life practice by creating a link between the students' cognitive skills and the real socio-cultural practices needed for learning new literacies in the English language. It is suggested that in order to facilitate learning EFL/ESL, learners should be provided with a comprehensible input, opportunities for output, interaction, and opportunity to negotiate meaning (Erben et al 2009; Toyoda & Harrison, 2002). This relates to two hypotheses in language learning: the 'interaction hypothesis', a theoretical approach developed by Long (1996, 2006) who posits that acquisition is facilitated through interaction when second or foreign language learners are engaged in negotiating for meaning, and the 'output hypothesis', developed by Swain (1993, 1995), suggesting that producing output is a way of testing comprehensibility and linguistic competence and a means for practising the target language through interaction with others.

According to Skehan (1998), this output can make useful contributions; by using language with others, language learners can: (1) obtain richer language contributions from others; (2) be forced to pay attention to the structure of the language; (3) test out their language assumptions and confirm them through the types of language input they receive; (4) better internalise their current language knowledge; (5) work towards better discourse fluency; and (6) find space to develop their own linguistic style and voice.

Teeler and Gray (2000: p3) regard the Web in general, and Web-based e-mail in particular, as a perfect tool for ELT and ELL. In the same context, Tao (1995) concludes that e-mail is a direct, straightforward application that is capable of bringing traditionally peripheral persons into the instructional mainstream, and offering users chances to develop positive attitudes. Similarly, Gonglewski et al (2001) suggest many pedagogical benefits of e-mail in teaching foreign languages such as: (1) extending time and place for language learning and providing a context for real-world communication and authentic interaction; (2) expanding topics beyond classroom-based ones and promoting student-centred language learning; and (3) encouraging equal opportunity participation that connects language learners quickly and cheaply.

Warschauer (1995) states three main reasons for using e-mail in the context of ELT: First, it provides students with an excellent opportunity for real and natural communication. Second, it empowers students for independent learning. Third, it enriches the experiences of teachers. Real and natural communication is always required for students to reinforce their language input. Offner (1997) argues for the necessity of real communication in English stating that English is not just a set of rules like

mathematics. The initial goal of learning English is to communicate, and therefore, the focus and measure should be on the ability to get one's ideas across. Students need to understand that they must become fully involved in the communication process with others in English (even indirectly through e-mail) to gain competence and practise the already-learned input. Moreover, through e-mail communication, students may acquire some lifelong learning skills, such as independent learning that involves taking charge of one's own learning and being able to make informed choices and taking responsibility for learning activities (Dantec & Jowers, 2007).

E-mail communication has been the subject of many studies (e.g., Richards et al. 2007), especially in the context of EFL teaching/learning (e.g., Lee, 1998; Shang, 2007) and EFL teacher education (e.g., Liaw, 2003). Based on a social learning theory that considers social participation as vital to learning, Richards et al (2007) investigated e-mail communication as used between graduate students and pre-service teachers in a summer literacy camp as they made decisions about supporting the instructional needs of children at risk. Similarly, Liaw (2003) implemented a cross-cultural e-mail project to provide a group of EFL student teachers in Taiwan with the opportunity to interact with bilingual/ESL pre-service teachers in the US. Analyses of the e-mail entries revealed that the Taiwanese participants obtained from their US counterparts valuable information focused on the areas of interpersonal, socio-cultural, pedagogical, and language learning issues.

Nowadays a prominent everyday practice for people is to use voice chat instead of the telephone, especially when they talk to others living in far places. Chatting originally emerged in a text form (i.e. text chat) of three forms: chat rooms, Internet Relay Chat (IRC) and instant messaging (Smith & Baber, 2005: pp58-69). To access a chat room, one needs to log in using a unique ID and a password. Usually, chat rooms are divided in terms of interests into certain categories and sub-categories that address people's varying interests, such as education, religion, and entertainment.

From a language learning perspective, chatting provides students with a useful opportunity for exposure to native speakers by interacting directly with them, which socialises them in English as a target language (Davies et al, 1998: pp17-18; Smith & Baber, 2005: p60). Moreover, for me the IRC type, described by Teeler and Gray (2000: p31) as a way of written communication that highly depends on typing skills, is sometimes useful to EFL learners as while they practise reading and writing online for

long hours with real communicative purposes in mind, they may develop many language skills.

There are many other facilities that can expand the traditional language literacy practices such as Blogs, Wikis, and social networking websites, all of which have emerged with Web 2.0, a new generation of the Web fostering knowledge sharing and online publishing (Alexander, 2006; Parker & Chao, 2007). These facilities have created many opportunities for language learning and practice. A Blog is a shorthand of the word 'weBlog' that refers to a Web application in the form of an online interactive journal or diary, available on a website that is accessible to anyone, which contains periodic posts (i.e. individually created entries) on a common webpage which often appear in reverse chronological order. The person who creates such posts is known as a Blogger and these posts reflect various topics and interests (Levine et al, 2007; Sauer, 2006). Campbell (2003) identifies three types of Blogs that can be used in the English class: the tutor Blog, the learner Blog, and the class Blog, each of which has its own uses.

The idea of having an online diary for people to freely write and exchange their personal opinions and reflections, and the fact that creating and using Blogs, as Campbell (2003) notes, does not need any advanced technical expertise, hold many educational implications for ELL. Smith and Baber (2005: pp140-3) identifies some benefits of Blogs for both English teachers and learners: (1) a teacher can use Blogs to post his/her daily thoughts and observations for his students to read; (2) tasks can be set for them on the Blog to help them to practise reading comprehension skills; (3) a Blog can be structured by category to add relevant content; (4) images and drawings can be put to help students to develop their writing skills; (5) students can set up Blogs for themselves to post their descriptions of previously-posted images, or to keep a diary to practise their writing skills in English; and (6) using Blogs, students can write articles or essays about a topic of their own interests to get feedback from real native speakers.

Search engines, when used as data locators, are important tools, since the Web is not indexed in any standard manner (Flanagan, 2004), and therefore, finding information can be problematic sometimes. Whether it is 'a programme', 'a set of programmes,' 'a software,' (Dreamweaver & Fireworks Resources, 2003) 'a directory,' (Verio, 2008) 'a server,' or 'a service,' (Geeknet, 2005), a search engine is a tool that, when provided

with relative keywords, helps us to locate the information we want through a quick search in all online documents, resources, and indices within a few seconds or less.

In other words, search engines are the means through which one can access information, and, according to Warschauer et al (2000: p50), are "the most valuable tool" for online research. An important fact that adds importance to search engines is that saving websites for future access is not the best practice because new sites appear, old ones vanish, and existing ones modify themselves in terms of content and URL addresses (Moore, 2003: p8). Consequently, it is vital to use search engines to locate a piece of information by supplying convenient keywords when a URL does not display the target page.

Using search engines raises some issues and concerns; one of these is the problem of choosing one from among a variety of search engines available on the Web. At present, Google is on top of the most widely used search engines. Its relevance ranking is frequently cited as the best amongst all search engines since one is likely to find useful websites within the first ten 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 developing 'artificial intelligence', a feature that makes search engines smart enough to understand what one is looking for. Besides, Google presents many services, such as Google books, translation, scholar articles, YouTube, and Google Earth¹.

To locate information easily while using Google and other search engines, some strategies and/or techniques can be used such as using keywords effectively; refining the search terms and switching search engines (Eagleton & Dobler, 2007: p172) to have a better chance of locating information; reading the search tips or *help* information at each search engine (Harris, 2000); and using the 'advanced search' option to narrow down the search to return the most relevant results (Moore, 2003: pp11-12).

There is a strong relationship between using search engines and learning English. First, using search engines activates language use and develops students' vocabulary because this process relies on using appropriate keywords and requires linguistic knowledge beside the procedural and technical knowledge (Herington, 2002). Second, it requires

¹ For more information on these services, visit: www.google.com

some English reading comprehension skills (Henry, 2006: p615), such as skimming and scanning (Collisson, 2008), to quickly and easily identify relevant information within massive amounts of WebPages that a search engine returns.

Other facilities can be used to foster knowledge construction and ideas sharing since Web 2.0 technologies enable users to collaboratively share and edit information online to construct knowledge. They include Wikis (e.g., Wikipedia) and enquiry-based learning models, such as WebQuest and QUEST. A Wiki, originally developed by Ward Cunningham in 1995, is a collaborative website that many people can work on or edit (Erben et al, 2009: p132). It was devised to encourage information sharing allowing users to freely add and/or edit content as they share a common goal and mutual trust (Hammond, 2007). Like Blogs and Discussion Boards, Wikis represent a form of online communication or e-collaboration through which people communicate to exchange ideas and share documents (Fichter, 2005). The most famous and widely used Wiki online is Wikipedia¹.

In terms of ELL, Erben et al (2009: p132) regard a Wiki as a reading/writing e-tool that enhances learners' literacy skills by creating effective language learning environments through providing language learners with many opportunities to read, write, and discuss written English texts expressed in a variety of ways. More specifically, the fact that Wikis allow anyone to add and edit information provides a good chance for English learners to exchange ideas and opinions, practise writing as a language skill in the context of an online environment, develop dictionary skills, and read, evaluate, and criticise others' writings to edit (or add to) them in a constructive and collaborate fashion.

English learners' use of Wikis and other collaborative Web-based tools fits within Vygotsky's (1978) concept of zone of proximal development (ZPD) which, according to Moll and Greenberg (1990: p5), represents a change of focus from teacher-fronted instruction to student-centred learning. ZPD focuses on the English learner's active creation or use of new means to accomplish and understand an activity while collaborating with others to learn. While using Wikis, language learners work together to form their writing community and, in the end, knowledge is shared and collectively constructed (Erben et al, 2009).

¹ http://en.wikipedia.org/wiki/Main_Page

3.4 Conclusion

This chapter provided a theoretical background for the whole thesis as part of the design-based research (DBR) framework. This involved addressing the main keywords in the thesis title through three distinctive sections. The first section provided some details on teacher education as a context in which the curriculum design process should be approached from an enactment perspective so that the teaching/learning practices can be enhanced. The second section provided detailed arguments on the concept of literacy and the developments that have been occurring to it; the main approaches to literacy and how new technologies in the 21st century have recently imposed new approaches; and the concept of Web-based new literacies and some examples of those literacies. The final section explored the Web and its learning approaches, along with some Web-based facilities that can open spaces for language learning. This background should inform the subsequent stage of this preliminary phase that involves a preliminary data collection and analysis. More specifically, it stands as a basis for the documentary analysis process conducted in the next stage.

CHAPTER FOUR: DATA COLLECTION AND ANALYSIS IN THE PRELIMINARY PHASE

This chapter reports on the methods and procedures of data collection and analysis followed in the preliminary phase as well as the resulting empirical data. After reviewing literature to provide a theoretical background, empirical data are needed to characterise the target context by identifying the literacy needs of the Egyptian EFL student teachers, with specific reference to AUCOE. The identification of these needs will contribute to answering the first two research questions. To answer the first question, *"What is the range of the Web-based new literacies that Egyptian EFL student teachers need in the context of their pre-service teacher education programmes to cope with the increasing use of ICTs in TEFL?"*, a review of literature was conducted (see Chapter 3) to inform a concurrent documentary analysis process with the aim of compiling a Web-based new literacies list. The generated list in turn was administered through an online questionnaire to some Egyptian participants (n=50) with the aim of contextualising it within the target context.

To answer the second research question, *"Which Web-based facilities are beneficial to Egyptian EFL student teachers, and why and how can they be beneficial?"*, semi-structured interviews were conducted to explore the Web-based facilities useful to them from the perspectives of both EFL student teachers and their educators. This list, along with the interview data, will be used as resources to inform a preliminary design framework guiding the first iteration in the subsequent prototyping phase.

In addition, as a procedure necessary for the prototyping phase, a screening questionnaire was prepared and administered face-to-face to the whole group of senior EFL student teachers at AUCOE. The main goal was to identify based on certain criteria the required participants throughout a purposive sampling process.

4.1 Methods of Data Collection and Analysis

4.1.1 Keeping a PhD research diary

Cohen et al (2007), Flick (2006), and Hammersley and Atkinson (1983) highlight the important role of reflexivity in research since researchers are inescapably part of the

social world they are investigating. Computers, as Flick (2006: p343) argues, have recently assisted researchers during the different stages of the research process, including data collection and analysis. Hence, a computer-based, or Web-based, research diary facilitates reflections, notes, and memos, making them flexible and manageable for later use. This is extremely important when building a theoretical framework in a study (Flick, 2006: p344).

Therefore, a Web-based research diary in the form of an e-mail notepad (*Yahoo! Notepad*) (see Appendix C for samples) was kept right from the start of the research process to record all significant events and updates (e.g., contacts, resources, reminders, must-do tasks, notes, comments, procedures, scripts, and essential readings) (see also Gibbs, 2007: p26). My Web-based research diary was divided into sub-folders that covered the basic research aspects corresponding to the main topic of the study (e.g., literature review, research methodology, data collection methods, and interventions). What distinguished this diary was that the notes included under these underlying folders could be easily added, moved, deleted, and updated. Hence, it was a flexible and helpful online tool that was regularly checked on a weekly basis to remind me of the essential tasks. This way, it helped with time management and keeping a record of the research procedures followed right from the start. Being online or Web-based was a significant advantage of this diary; it was accessible from any place at anytime, and thus the recording process could be conducted quickly and smoothly.

4.1.2 Compiling a list of Web-based new literacies

The broad aim here was to identify the range of those Web-based new literacies that EFL student teachers need, and hence, to answer the first research question. This was accomplished through documentary analysis guided by literature review.

4.1.2.1 Documentary analysis guided by literature review

A preliminary review of literature was conducted to familiarise myself with the topic and identify relevant themes before doing the documentary analysis (see Chapter 3). This does not imply that the documentary analysis followed literature review in a consequent fashion, but rather in a dialogic, iterative fashion. In other words, I shifted flexibly from literature review to documentary analysis, and the other way around, depending on how the new ideas and insights would lead me. To facilitate the process, I followed an electronic way of organising the reviewed literature; I organised literature into several Microsoft Word files, which were screened for the most relevant sections,

and then compiled into one Word file. Throughout this process, Microsoft Word as an application played a significant role in facilitating browsing and locating specific and relevant data; in particular, the 'find' command enabled a quick and easy search for keywords and relevant pieces. Thus, with the help of this electronic facility, literature review provided both a theoretical background (see Chapter 3), and some guidelines to be used in informing the choice of certain documents to analyse in the documentary analysis process such as: (1) how the concept of literacy has changed; (2) what new literacies in general and Web-based new literacies in particular exactly mean; (3) how these literacies are relevant to language learning; and (4) which of these new literacies are important to EFL student teachers.

Along with literature review, documentary analysis was employed to examine many online documents (e.g., e-mail messages and online contributions). Using documentary analysis guided by literature review in this preliminary phase was, in Wellington's (2003: pp113-114) terms, necessary to open up and explore the field and to come to grips with the key issues. In this regard, Creswell (2003: p187) enumerates some advantages of using documents for data collection: (1) they are an unobtrusive source of information that can be accessed at a time convenient to researchers; (2) as written evidence, they save researchers time spent in transcribing; and (3) when authentic, they present thoughtful data.

From a methodological standpoint, documentary analysis forms an excellent means of triangulation (Wellington, 2003: p121), a research technique adopted in the study allowing for, in McCulloch's (2004) terms, a deeper understanding of the situation. Besides, documents are useful in rendering more visible the phenomena under study (Prior, 2003: p87).

Approximately, one hundred documents were analysed, belonging to three main categories:

1. Academic documents available online (e.g., journal articles and book chapters), which Cohen et al (2007: p201) and McCulloch (2004) consider an appropriate type of documents to analyse;
2. Stimulated voices from the field, which included e-mail messages written by EFL teacher educators who were prompted to present their personal accounts on Web-based new literacies. In a sense, these documents were purposeful,

realistic, and contextual since they represented voices from the Egyptian context;

3. Some online contributions made by educators and specialists in TESOL and TEFL on online tools such as Blogs, e-groups, and Wikis.

The documentary analysis used here was a flexible process guided by the research objectives. In Krippendorff's (2004) terms, it was a problem-driven and question-related process in the sense that the research question was guiding the selection of texts. Generally, documentary analysis ranges between the technical discourse analysis, to the simple reading of texts with the aim of gaining information (Grix, 2004: p131). In my case, I utilised it from a pragmatic standpoint that focused on the main message rather than on any discourse analysis since the main goal was to generate a Web-based new literacies list, not to analyse style. Further, because this is not a documentary-based study, documentary analysis here was conducted, not from a traditional historical perspective, but from a modern view of documents that recognises their multi-semiotic nature and multi-functional purposes as well as the changes that the Internet has recently brought to the nature of documents (Fairclough, 1995: p4; McCulloch, 2004: p3).

Further, I employed a qualitative, dialogic, and thematic analysis that focused on the relationships within the text and its relationship to other texts. This analysis was assisted by using NVivo 8, a Computer-Assisted Qualitative Data Analysis Software (CAQDAS), to help with the coding process; in particular, using the tree and free nodes enabled by the software helped with generating and organising the suggested categories. However, the software was utilised at a very basic technical level; only few features were used to facilitate and accelerate the processes of organisation and categorisation since some reflection was needed to create links between different pieces of data. Because it was easy and flexible, the electronic coding process enabled themes and categories to emerge. Thus, the thematic analysis was employed here in a dialogic fashion that recognises both deductive and inductive techniques needed for generating themes and categories from data. This way, some preliminary categories were envisioned based on preliminary reading to guide the analysis process; these categories were iteratively revisited and revised based on new insights till some final coherent categories were generated (see also Ezzy, 2002).

Here I present an illustration of how the documentary analysis process supported by NVivo 8 was conducted. This will explain and expand my thematic analysis approach by giving concrete examples. However, before going through this and for clarity purposes, I will provide a brief description of how the software works. The files or documents that need to be inserted and based on which the coding process is conducted, are called 'sources'. In a 'sources' view, all the different sources can be seen. 'Nodes' refer to the categories or themes that one generates from the data included in the sources. As one works with these sources, s/he will gather and explore existing and new categories for thinking about them. Thus, nodes are *containers* for one's ideas within any NVivo project. Creating and exploring nodes is a way to think 'up' from the data and arrive at higher-level explanations and accounts (QSR International, 2007).

Further, 'coding' is the process by which one nominates a portion of a source that relates to a node. The process was significantly facilitated and made easy by NVivo; one needs just to highlight any section of data in the source, and then code it at any node (or maybe at multiple nodes). In a 'node' view, the software enables one to see different pieces of data taken from different sources in one page and under one theme. NVivo provides different types of nodes suited to different types of ideas and concepts: (1) *Free Nodes* can be used as containers for loose ideas which are not conceptually related to other nodes in the project. As the project develops, these nodes may be moved into a logical place in the 'tree nodes'; (2) *Tree Nodes* are used to represent the concepts and/or categories that are logically and conceptually related as they can be organised in a hierarchical structure. These nodes can be divided into 'parent nodes', and 'child nodes' depending on the position of each node in this hierarchical structure; (3) *Cases* represent the entities within the research study (e.g., people, schools, institutions, and families). They can also have 'attributes' to record the characteristics of those entities; (4) *Matrices* can be used to show how the contents of different nodes relate to each other. They are created by querying the data using matrix coding queries and are presented in a tabular format; (5) *Relationships* represent what one knows or discovers about relations between items in the project (QSR International, 2007).

In my case, I determined some of the themes to represent as nodes in the project prior to exploring the sources based on my prior investigation into the literature and some keywords that I generated after a quick review of some academic documents. As I worked through the different sources, I could come out with a number of additional

themes or topics that I represented later on as nodes that could fit in within the preliminary nodes.

I also created some 'memos' right from the start to represent my own reflections and understanding, and thus take the coding process further. Within NVivo, a *memo* is type of source that one might use to record thoughts and observations. If a memo is related to a particular source or node, one can create a 'memo link' to link the two together.

Now, I will illustrate in detail and with examples represented by some screen shots how the data analysis process was conducted within NVivo. As a preliminary procedure, based on the concurrent literature review I was doing, I inserted some relevant academic documents (e.g., journal articles and book chapters) into NVivo to act as main sources to inform the coding process. I started to read these sources in detail while coding some sections under some preliminary nodes (themes and categories) that emerged during reading. At the same time, I sent e-mails to some EFL teacher educators at Egyptian universities, especially AUCOE, to solicit their accounts on Web-based new literacies based on my operational definition of the term (see Chapter 1). In other words, they were requested to state any Web-based new literacies regarded as useful and important for EFL student teachers to cope with the current innovations and new technologies in the TESOL field. They were encouraged to provide their inputs based on their personal TESOL teaching experiences, especially as far as the Web was concerned, as well as their discussions with their students, if possible (see Figure 2 below for an example screen shot).

Based on a thematic analysis of these accounts within NVivo in which I employed the tree nodes facility and the quick coding schemes, I came out with the following preliminary categories or themes (see also Figure 3 below):

Web-based new literacies

1. Online Critical Literacies
2. New Related to English Language Skills
 - 2.1 Online communication and collaboration (e.g., employing e-mail, Blogs, and other tools to use English for authentic communicative purposes).
 - 2.2 Online reading comprehension
 - 2.3 Online writing and composition
3. Information Management Skills (e.g., Searching for, synthesising, and organising information)

Figure 2: A screen shot from NVivo 8 that illustrates some main sources of documentary analysis

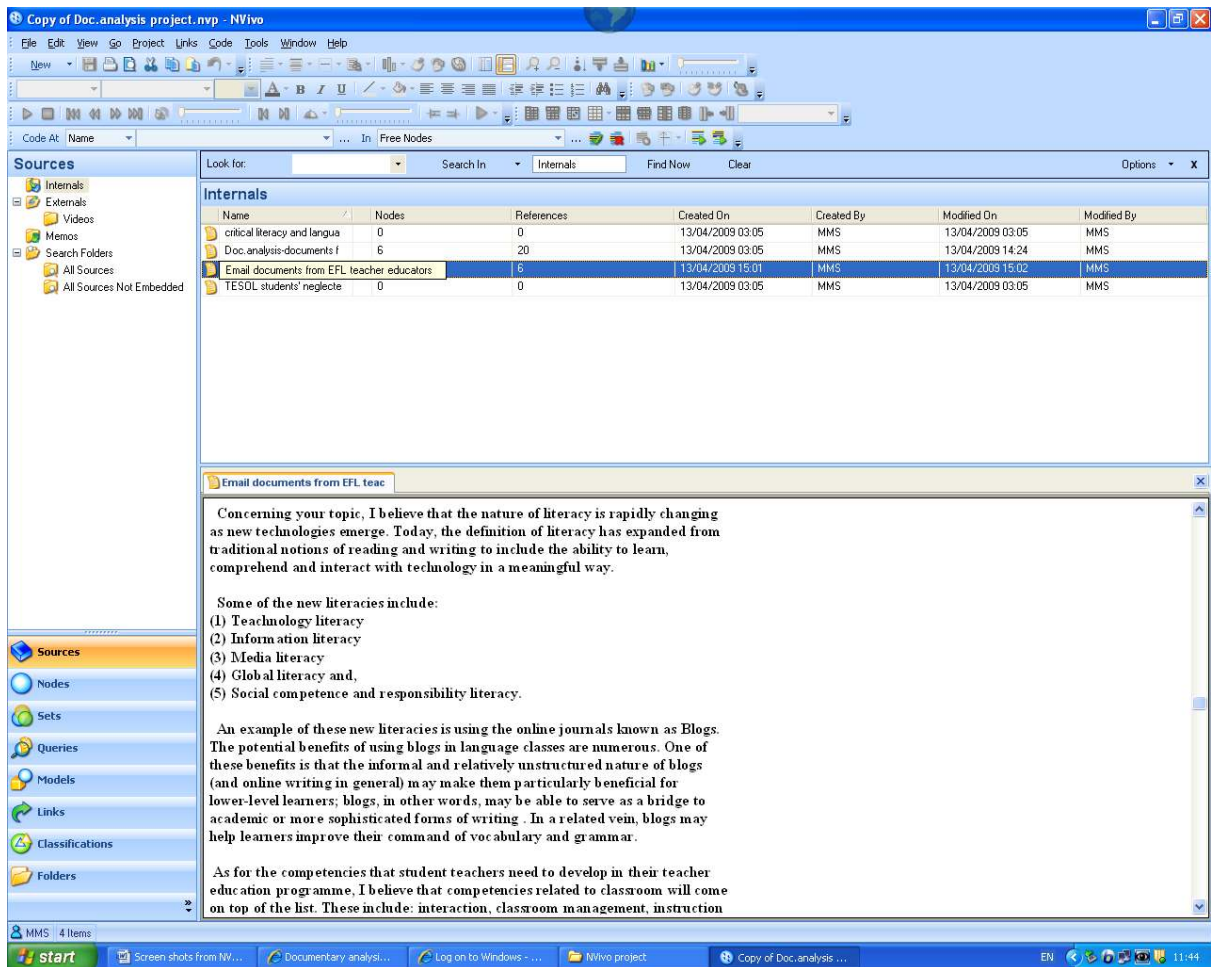
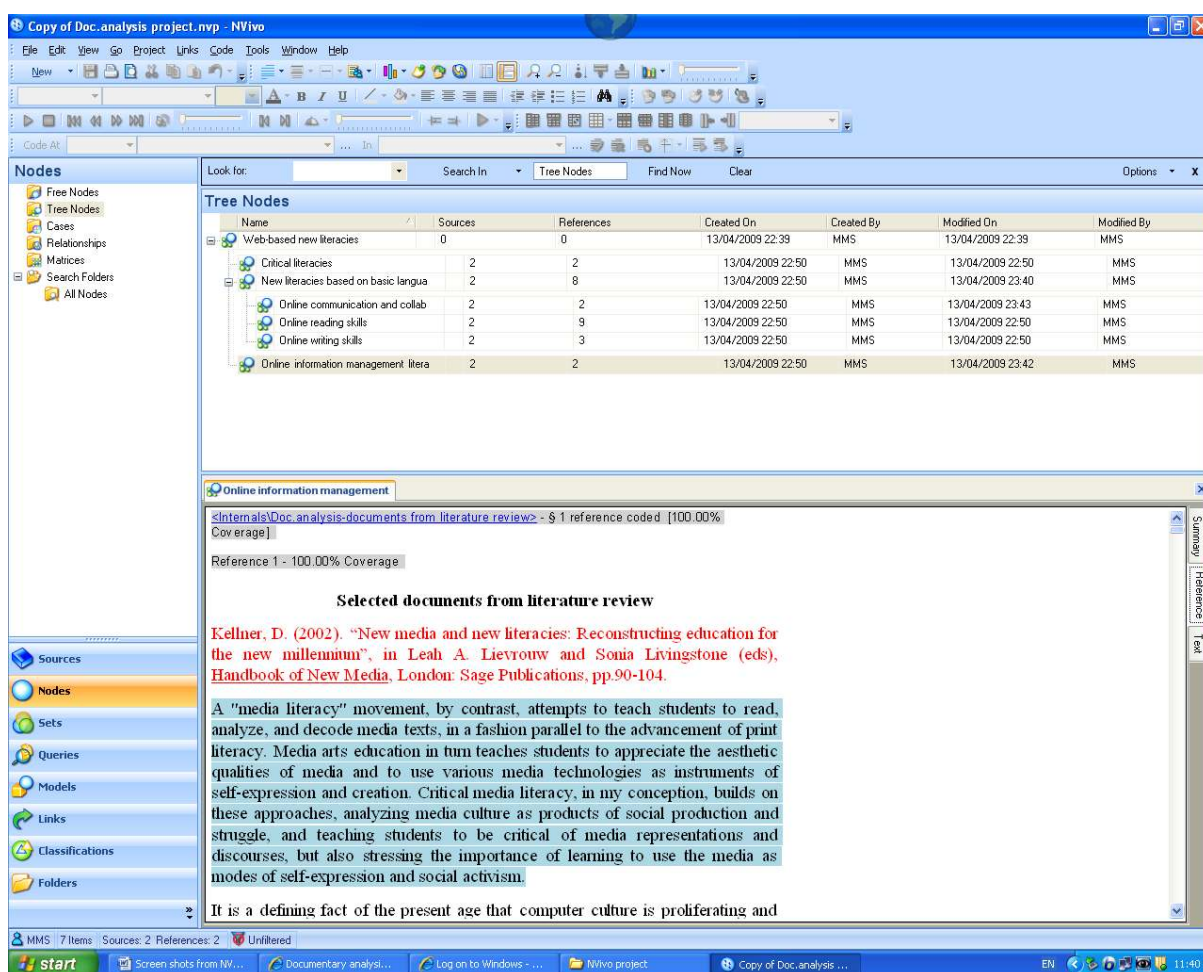


Figure 3: Some preliminary themes and categories based on initial documentary analysis



These very preliminary themes, along with some relevant items and examples under each theme/category, were displayed to some academics and experts in the field of literacy and language learning to provide their feedback on this classification and the suggested themes.

Many of the approached academics/experts provided insightful feedback reports. Most of them suggested that there was a weakness in this classification represented in an overlap between some of these categories, such as "2.1 Online communication and collaboration" and "2.3 Online writing and composition", arguing that online writing and composition can be a form of online communication as well. Therefore, a separate general category of "Online Composition, Communication and Collaboration" was created to include online composition and some other forms of online communication.

Similarly, some experts were not happy with having "1. Online Critical Literacies" as an independent broad category that might better fit in within another category, such as reading comprehension. This was sorted out by including it as "2.3 Critical literacy

skills" under the general category of "2. Online Information Management and Knowledge Construction" that also includes surfing the Web and locating information.

Further, many of them admitted the difficulty of having a clear-cut taxonomy that puts clear borders between different categories without allowing for any potential overlap. The issue is that Web-based new literacies are overlapping by nature, and consequently, any categorisation is just an artificial organisation that serves my organisational purposes and research objectives. It is no more than an attempt to make the specific items in the list understandable by relating each to a well-known broader category.

Keeping these modifications in mind, I returned to NVivo and started creating new tree nodes (related themes). I continued reading and re-reading the data sources (see Figure 4 below), and subsequently, coding, un-coding, and re-coding different sections. In the nodes view enabled by the software and which facilitated viewing all coded sections in a tree relationship, I could grasp some connections between different themes and items. This was considerably facilitated by the memos I was writing continuously to reflect upon the analysis process, such as the following analytic memo:

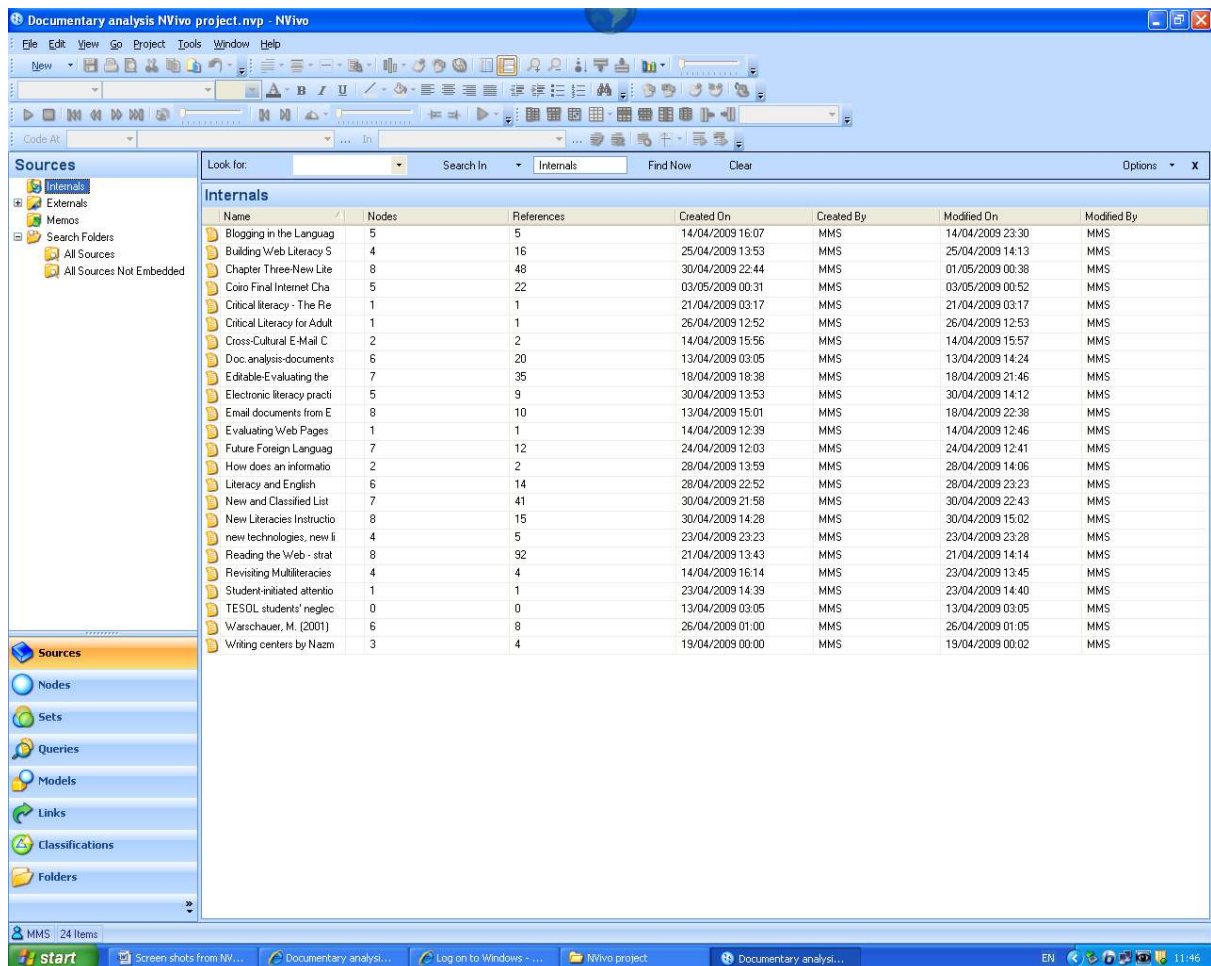
It sounds clear from analysing these academic documents so far that online reading is different from paper-based reading; that's why in my opinion the new literacies research team at the University of Connecticut are totally focussed on online reading comprehension and new literacies related to it. Similarly, writing e-mails or using software for writing them is totally different from traditional writing on paper. But, I've never heard that listening online is different from listening to any other thing in our environment, like a radio or a cassette, or that speaking online is totally different from speaking on the phone! This is the main reason why my focus in this analysis is more on reading and writing than on listening and speaking. The point here is: which needs more skills and competencies? which one is different when it is done online? And, above all, which one is more difficult and complicated when done online?

As a result, some new items were generated, and then included under newly created themes. These items included:

1. The ability to negotiate meaning online;
2. Using the Web as an online library for language learning and practice;
3. Employing many Web-based tools for collaborative writing and knowledge construction online;
4. Evaluating the utility of websites and selecting the relevant information;

5. Communicating with language educators and specialists through e-mail, for example, to solicit their feedback;
6. Creating content and constructing knowledge through using Blogs as online publishing tools;
7. While reading online, student teachers should use specialised strategies and skills, which are quite different from those used in normal book reading;
8. Making use of many elements in WebPages and websites (e.g., hyperlinks, formats, graphics, structure, sound, and colour) in understanding the main message.

Figure 4: More data sources used in NVivo 8 for documentary analysis



Therefore, I kept re-naming themes, deleting some, creating new ones, and changing relationships between others in the tree to reflect the dialogic coding process going on. For example, after some coding, the node 'critical literacies' was re-named as 'critical

literacy skills’ and was included under ‘Online Information Management and Knowledge Construction’. Similarly, the main node ‘Language Skills’ was deleted and merged with other nodes as, based on some academics’ feedback, it overlapped with other online competencies. Consequently, the node ‘online writing skills’ was re-named as ‘composing and writing online’, and was included under the broad category of ‘Online Composition, Communication and Collaboration’.

This required generating the following new taxonomy that underlies a long list of new literacies:

1. Online Composition, Communication and Collaboration
 - 1.1 Membership in a knowledge society and online communities
 - 1.2 Composing and writing online
 - 1.3 Meaning negotiation and ideas sharing
 - 1.4 Online language practice
2. Online Information Management and Knowledge Construction
 - 2.1 Surfing the Web and locating information
 - 2.2 Online reading comprehension
 - 2.3 Critical Literacy Skills
 - 2.4 Synthesising information and constructing knowledge
3. Accessing Web-based English Resources
 - 3.1 Making use of the Internet as an online library
 - 3.2 Accessing authentic material

In the final stage, I felt that I needed to get out from NVivo after finishing all the needed coding, organisation, and memo writing. Therefore, I copied the necessary data into a Microsoft Word document where I manually compiled the final list of Web-based new literacies to display afterwards to a group of Egyptian participants.

4.1.2.2 Administering the list using an online questionnaire

The resulting list of Web-based new literacies (see Appendix D) was formulated into an online questionnaire. The first draft version was distributed to 15 Egyptian EFL teacher educators to check its validity and reliability. Those educators were asked to approach the preliminary questionnaire from both researchers’ and participants’ perspectives. In other words, they were required to comment on the questionnaire in terms of: (1) its overall organisation and suitability to the research objectives; (2) the clarity of the items in the list; (3) its internal consistency and electronic display; and (4) the aspects that could be improved. Based on their comments, the questionnaire was amended, and then piloted on 10 Egyptian EFL student teachers to check for the average time needed for completion and the clarity of statements and instructions, and subsequently revised.

The final questionnaire was administered to a group of Egyptian EFL teacher educators and student teachers (n=50) to rate these literacies in terms of importance on a 3-point Likert scale (i.e. ‘not important’, ‘quite important’, and ‘very important’). Using only three categories (a 3-point scale) was intended to facilitate things for participants and resolve any confusion and/or misunderstanding that a 5-point (or more) scale might cause. After all, participants included many EFL student teachers who needed an easy questionnaire with few categories. The selection of participants was mainly based on purposiveness and accessibility, two criteria mentioned by Silverman (2001). More specifically, participants had to meet certain criteria such as: (1) having e-mail accounts and access to the Internet; (2) using the Internet regularly; and (3) mastering the basic literacy skills of using the Internet.

Based on participants’ answers to the few demographic questions posed at the beginning of the online questionnaire (see Appendix D), the following information was obtained (see Table 2 below).

Table 2: Demographic data of participants (n=50)

Gender	Males	Females		
	24 (48%)	26 (52%)		
Job	EFL student teachers	EFL teacher educators		
	15 (30%)	35 (70%)		
		University lecturers	Assistant lecturers	Other relevant teaching professions
		19 (38%)	11 (22%)	5 (10%)
Affiliation	Egyptian colleges of education	AUCOE	Other educational institutions	
	43 (86%)	25 (50%)	7 (14%)	
TESOL/TEFL Experience	+10 years	5-10 years	-5 years	
	23 (46%)	9 (18%)	18 (36%)	

Using an online questionnaire (see Appendix E) was a good option for methodological and geographical reasons. An online survey, as Mann and Stewart (2000: p70) argue, is identical for all participants and may have attractive appearance utilising text formatting and colours. In addition, it holds many features that facilitate administration and the subsequent data analysis process. First, its administration to participants located in Egypt was feasible and flexible online; in the invitation e-mail, a link to the questionnaire was included so that participants could access it from anywhere at anytime. Secondly, unlike the case in paper-based questionnaires or questionnaires attached to e-mail messages, it was possible to adjust the design of online questionnaires so that all questions become obligatory, making it impossible for participants to proceed to the next question without answering the preceding question. This increased the accuracy and consistency of the collected data and facilitated the statistical analysis process after inserting data into SPSS. Thirdly, the questionnaire was so flexible online that participants could complete it in more than one session, something that should have made participants feel more relaxed while completing it. Finally, completing the questionnaire online was an indication of participants' familiarity with the Web, and hence the research topic.

4.1.3 Interviews

The main goal of using interviews here was to identify the Web-based facilities needed and the rationale behind using certain facilities, and hence, to answer the second research question. The interview is among the most popular data collection methods (Grix, 2004), especially the semi-structured type used in qualitative research (Flick, 2006). It is an effective tool that allows for a research context where the interaction between the interviewer and the interviewee results in constructing knowledge and exchanging experiences (Kvale & Flick, 2008), something needed in my study. It is useful for collecting data when the deeper significance of the event is drawn out (Pring, 2005: p39). What distinguishes interviews is that they can reach parts which other methods cannot reach (Wellington, 2003: p71). They are divided into three types: unstructured, structured, and semi-structured (Kvale & Flick, 2008; Wellington, 2003); 'group interviews' can be added as a fourth type (Grix 2004: p125). Unstructured/open and semi-structured interviews, in particular, add flexibility to the investigation (Cohen et al, 2007: p355), allowing the researcher to cope with the unexpected, and thus, discover important aspects and information that add depth to the investigated phenomenon (Grix, 2004).

The interviews were conducted with 19 Egyptian participants (6EFL student teachers and 13 L teacher educators) (see Table 4 below). They were conducted online through e-mail and chat software (orally and/or in writing) depending on each participant's convenience. As a preliminary procedure, invitation e-mails were sent to EFL teacher educators which included a brief explanation of objectives, an operational definition of Web-based facilities, and a request for participants to choose the most appropriate time and means (i.e. e-mail, online chat, or telephone) for conducting the interview, and whether they needed open interviews at the beginning (see Appendix F). Based on some participants' preferences, some open, unstructured interviews preceded the semi-structured ones to discuss any ambiguous points included in the invitation e-mail, and thus, familiarise the participants with the topic.

Semi-structured interviews were used in this context for many reasons. First, using this type, as Manson (2002) argues, can be based on the researcher's specific ontological and epistemological positions concerning knowledge and interaction with participants. In my context, participants' perspectives, understandings, and experiences were important, especially because the second research question focuses on those personal and situated aspects that may not be fully captured by other standardised tools. Besides, using semi-structured interviews here is consistent with the main DBR methodology employed in the study (see Chapter 2) since DBR emphasises the necessity of seeking the viewpoints of those concerned in the research process by interacting with them as co-participants who should have a significant role (Collins et al, 2004; DBRC, 2008).

Second, the qualitative interview, as Kendall (2008: p133) argues, is an appropriate method for doing research on new literacies as it allows for the exploration of meaning, especially as constructed by research participants. Kendall (2008: p134) cites many examples on how using interviews was useful in projects related to new media and new literacies. In such contexts, interviews were useful when users' conceptions of the Web and new technologies were investigated, and when the analysis of accounts of experiences related to interacting with the Web, which were hard to observe, was targeted.

Third, issues of flexibility and structure are relevant here because, although ideas and guiding questions addressing the main interview topic can be decided in advance, it is hard to have a firm, totally structured order for the questions; each participant had his/her own approach to Web-based facilities, and therefore, it was difficult to create a

strict, pre-determined schedule. In this regard, Miller and Brewer (2007: p167) highlight flexibility as a major advantage that distinguishes this type in the sense that "the interviewer may ask certain major questions the same way each time but may alter their sequence and probe for more information".

Fourth, the flow of ideas is enabled by this type, allowing for the pursuit of unexpected lines of enquiry (Grix, 2004: p127). Unexpected directions might emerge during the discussion of Web-based facilities, which need to be considered as they might serve the study purposes.

In addition to being part of the research topic, the Internet in this context is a medium for conducting research. Silverman (2001: p8) argues for employing new ICTs to serve research, especially for data collection, and Flick (2006) defends the emerging research practice of using the Internet for conducting online interviews as an alternative to face-to-face interviews, especially when geographical and time constraints exist.

Based on participants' convenience and preference, interviews were conducted either synchronously through chat or asynchronously through e-mail. Each mode had its own advantages and disadvantages. For example, while the synchronous mode allowed for a real-time exchange that simulated face-to-face interview situations (Flick, 2006: p257), facilitating the creation of rapport and open, natural talk, it might have hindered the deep thinking, reflection, and long responses made possible through e-mail exchanges (see also Mann & Stewart, 2000). The basic criterion that governed the choice of one mode over the other was participants' preferences. In any case, the facility was exploited in the best way that could serve research. For example, while conducting one of the interviews using voice chat (at the participant's request), written chat was sometimes used for writing some terms to stimulate the interviewee to produce accurate accounts. In the asynchronous mode, which was used with very few participants who favoured it for access and availability reasons, one or two questions were e-mailed at a time; based on the interviewee's response, new or follow-up questions were sent until all aspects were covered. The participants who preferred e-mail declared that they liked this mode as it allowed them time to reflect upon the questions with no pressure.

From a methodological standpoint, using both online text chat and e-mail as means for conducting interviews facilitated two main areas: It allowed for the interview to be conducted with a reasonable number of participants (n=19); and it facilitated, to a great extent, the process of managing and analysing collected data. Online written

communication saves much time and effort for the researcher since it avoids the painful, time-consuming process of transcribing audio data (Flick, 2006). This way, more effort would be devoted to reflecting upon the data to analyse it.

The problem of creating the rapport that distinguishes face-to-face interviews from online interviews (Flick, 2006) was considered by following these procedures: First, participants were invited to an open interview (see Appendix G for a sample script) for familiarisation purposes. Second, when possible, informal telephone conversations with the unknown participants were made prior to the formal interview to resolve any concerns related to the reliability of demographic information (e.g., anonymity of participants' gender, age, and location) (Flick, 2006: p258).

As a follow-up procedure, participants were e-mailed the interview scripts. They were asked to read them to indicate whether they were compatible with what they said, and to write down any comments that might help with improving the script. They were also notified of some slight changes made to the original script to make it more coherent and understandable; these included: correcting any spelling or grammatical mistakes made as a result of the nature of the text-based online chat; re-organising the text to get over weaknesses attached to online text chat, such as delayed accounts made by participants as a result of slow Internet speed or slow keyboard use; and omitting parts irrelevant to the interview topic (e.g., personal chat and irrelevant Arabic sections) to preserve the logical sequence of the interview (see Appendix G for a sample script).

The data obtained from the interviews were analysed qualitatively with the help of NVivo 8 that was methodologically and technically employed to facilitate the analysis. The principal contribution of a CAQDAS software to qualitative analysis, as Fielding and Lee (1998: p88) note, is: "the systematic organisation of data in a form suitable for retrieval".

Nevertheless, as Flick (2006: p342) argues, computer software neither does the analysis nor replaces the use of a method. Therefore, I employed 'thematic analysis' as a qualitative technique to guide the use of NVivo 8. What is particular about this technique is that it is an inductive way that allows categories to emerge from data without imposing pre-existing theoretical frameworks on data analysis (Boyatzis, 1998: p4; Ezzy, 2002: p88).

However, using thematic analysis as an inductive technique here does not mean that the analysis started from scratch; this was practically impossible since qualitative analysis is inevitably guided by previous ideas and perspectives, even when the employed analysis technique is assumed to be totally inductive (Bazeley, 2007; Gibbs, 2007; Kelle, 1997; Strauss & Corbin, 1998). Both deductive and inductive techniques were employed in my qualitative analysis; it was natural, even before data collection, to generate from the interview questions some preliminary themes and categories. Later on, based on a repeated reading of the interview scripts, other more specific themes and categories emerged.

According to Boyatzis (1998), thematic analysis involves three main successive stages: (1) seeing (i.e. sensing themes in raw data); (2) encoding or 'seeing as' (i.e. perceiving patterns and themes); and (3) interpreting the themes in the context of conceptual frameworks. The key process here is coding that can be defined as a way of relating data to our ideas about them by attaching one or more keywords to a text segment to permit later identification of a statement, and thus it is a key aspect of the computer-assisted analysis of interview texts (Boyatzis, 1998; Kvale & Flick, 2008: p105). The main function of coding in qualitative data analysis is to organise the text by dividing it into segments that can be distinguished from each other by the created codes (Fielding & Lee, 1998: p87). Hence, the role of coding in qualitative analysis is to stimulate the identification of analytic themes, to organise data in connection with emerging themes, and to support data reduction by representing its key features. NVivo 8 is particularly useful for the smooth and flexible management of this coding process.

However, coding should be accompanied by an essential process of writing 'memos' with the purpose of making sense of the codes (Fielding & Lee, 1998: p104). The 'memoing' tools enabled by NVivo 8 facilitate theory building from the data (Welsh, 2002). Memos are perceived as analytic thoughts about the codes that provide clarification and direction during coding (Gibbs, 2007: p31). A memo can be a sentence, a paragraph, or a few pages that pushes the analysis process forward from the simple level of coding, towards the deeper level of interpretation and theory building (Glaser, 1978). In line with Karmaz's (2006: p72) argument, writing memos helped me with: catching and organising my thoughts; capturing the comparisons and connections I made between interviewees' accounts; and crystallising questions and directions to guide my final conclusions.

Being designed specifically for the qualitative analysis of unstructured, non-statistical data, the software saved for me much time and effort by removing many of the manual tasks associated with analysis, such as cutting and pasting pieces of papers and sorting information. Thus, it allowed for more time to explore issues and ultimately reach answers to questions (QSR International, 2007). However, the software is employed to facilitate the qualitative analysis of the interviews, not to do it, because it only offers, as Flick (2006: p342) stresses, some tools for making it more comfortable. Therefore, I did some essential procedures manually, such as putting pieces of data together to come out with meaningful parts and generating reflections and conclusions. In short, a combination of both manual and computer-assisted methods is likely to achieve the best results, particularly when the best features of each are combined (Welsh, 2002). In my case, I utilised the software in the best possible way for organisational and administrative purposes, such as coding and writing memos. But when it came to making sense of these memos, I resorted to ‘manual’ methods. Therefore, at a certain point, I had to copy data from NVivo and paste them into a Microsoft Word file to reflect upon and manage them manually. Based on this, I came out with the final interview results.

Here I present an illustration of how the interview data analysis supported by NVivo 8, was conducted. This involves giving concrete examples based on the analytic memos I was writing and updating on a regular basis within the software to connect together different themes and ideas.

First of all, I included all the interview scripts as main sources within the software based on which the coding process and the creation of tree and free nodes were conducted. I read all the scripts several times to familiarise myself with the data and come out with some general themes. Then, based on the interview questions and this thorough reading, I could come out with some preliminary themes to use for initiating the coding (see the screen shot below). These themes included:

1. Web-based facilities list;
2. Rationale;
3. Educational benefits of the Web in ELL;
4. Communication tools.

Later on, with the continuous coding of the interview scripts and connecting pieces together, I generated some minor themes as new nodes in the tree branching from the parent nodes above (see Figure 5 below). For example, under the main theme of "Educational benefits of the Web in ELL", the following new themes or nodes were generated:

- a) English language acquisition;
- b) exposure to English;
- c) Learning modes and services provided by the Web

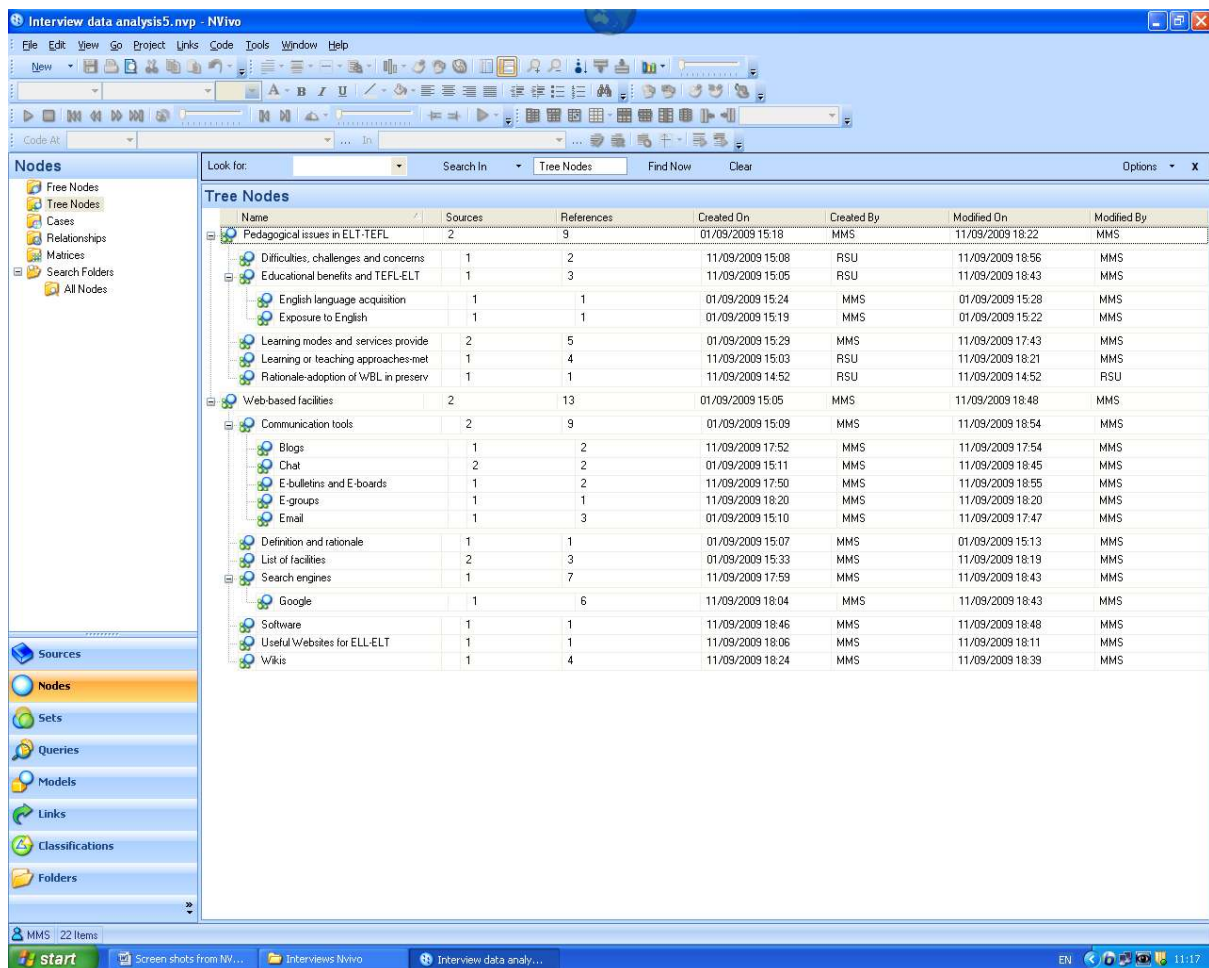
Figure 5: Preliminary themes concluded from the analysis of some interviews using NVivo 8

Name	Sources	References	Created On	Created By	Modified On	Modified By
Educational benefits of Web in ELT	1	3	01/09/2009 15:18	MMS	01/09/2009 15:31	MMS
English language acquisition	1	1	01/09/2009 15:24	MMS	01/09/2009 15:28	MMS
Exposure to English	1	1	01/09/2009 15:19	MMS	01/09/2009 15:22	MMS
Learning modes and services provi	1	1	01/09/2009 15:29	MMS	01/09/2009 15:31	MMS
Web-based facilities	1	2	01/09/2009 15:05	MMS	01/09/2009 15:41	MMS
Communication tools	1	1	01/09/2009 15:09	MMS	01/09/2009 15:32	MMS
Chat	1	1	01/09/2009 15:11	MMS	01/09/2009 15:32	MMS
Email	0	0	01/09/2009 15:10	MMS	01/09/2009 15:10	MMS
Definition and rationale	1	1	01/09/2009 15:07	MMS	01/09/2009 15:13	MMS
List of facilities	1	1	01/09/2009 15:33	MMS	01/09/2009 15:41	MMS

As for the Web-based facilities list which addresses the specific facilities provided by the Web as indicated by the interviewees, some minor themes or categories were generated such as: search engines (e.g. Google), useful websites for ELL/ELT, Wikis, communication tools (e.g. email, chat, Blogs, and forums) (see Figure 6 below).

After finishing reading 4 interview scripts in detail, and analysing and coding many sections, new nodes were added to expand the themes mentioned above. For example, the free node of "Real experiences with the Web" was added as a separate, independent node from the tree itself since it did not fit in with any other tree node. Some nodes were re-named for clarity purposes. For example, the node (or theme) entitled, "Educational benefits of the Web in ELL", was re-named as "Pedagogical issues in ELT/TEFL" so that it could include other relevant issues such as "Difficulties, challenges, and concerns" (see the screen shot below). Moreover, I found myself obliged to merge some nodes together, especially when the coded sections in both were closely relevant. From this point onwards, and after the main nodes or themes that should contain interview data were generated, the coding process within NVivo went smoothly.

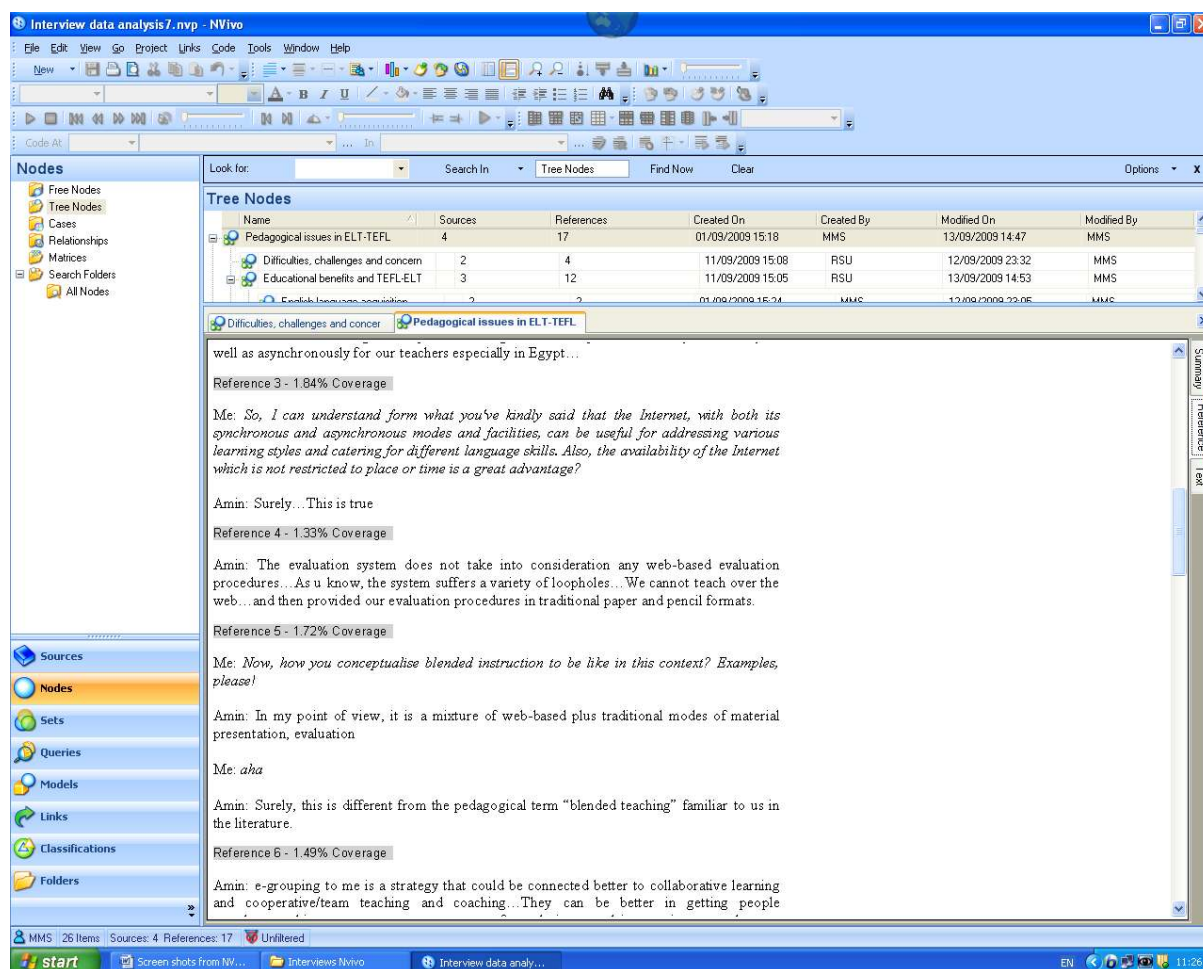
Figure 6: More main and minor themes concluded with the analysis of more interview data



After I finished coding all the scripts, I thought about going through the nodes themselves in node view to see data organised thematically. This helped with coming

out with other emerging themes and ideas. At this stage, the node view was better for me than the source view since in the former view, nodes containing data thematically from various sources/interviewees were connected together on the same screen as one piece (see Figure 7 below). This allowed for focussing on certain topics and themes rather than on any individual interviewee's account.

Figure 7: A node view within NVivo 8 that illustrates some coded pieces



What was worrying me at that stage was coding at multiple nodes since certain pieces of data could simultaneously fit in within multiple nodes, themes, or categories. For example, long segments or chunks were coded as a whole at multiple nodes to preserve coherence since it was difficult sometimes to cut them into smaller ones. This had advantages and disadvantages; an advantage, for example, was that some themes repeated within many relevant categories, and this could have been useful at a later stage of analysis and interpretation. A disadvantage, however, was that this sometimes caused confusion to me, resulting in a noticeable overlap in the generated categories or themes. To resolve this, I had to uncode some sections and merge some nodes later on. For example, some child nodes under the node "Educational benefits" were merged

together to overcome this overlap problem. In particular, "Exposure to English" and "Language acquisition" were merged as I discovered that there was no point in having them as two separate nodes or themes as they nearly indicated the same thing. Further, the node "Rationale and adoption of WBL" was renamed because it was not clear that it referred to pre-service EFL teacher education (see Figure 8 below).

Figure 8: Development of nodes based on coding more interview data

Name	Sources	References	Created On	Created By	Modified On	Modified By
Pedagogical issues in ELT-TEFL	6	19	01/09/2009 15:18	MMS	18/09/2009 15:05	RSU
Difficulties, challenges and concerns	4	7	11/09/2009 15:08	RSU	18/09/2009 15:05	RSU
Educational benefits and TEFL-ELT	5	20	11/09/2009 15:05	RSU	18/09/2009 15:02	RSU
English language acquisition	4	6	01/09/2009 15:24	MMS	18/09/2009 15:02	RSU
Exchanging-sharing experience	1	1	13/09/2009 14:50	MMS	13/09/2009 14:50	MMS
Exposure to English	3	7	01/09/2009 15:19	MMS	18/09/2009 15:02	RSU
Increasing motivation	1	2	18/09/2009 14:37	RSU	18/09/2009 14:43	RSU
Language proficiency and profess	4	11	12/09/2009 22:42	MMS	18/09/2009 15:02	RSU
Language resources	4	9	12/09/2009 22:38	MMS	18/09/2009 14:45	RSU
Learning modes and services provid	6	13	01/09/2009 15:29	MMS	18/09/2009 14:34	RSU
Learning-teaching theories, approac	3	9	11/09/2009 15:03	RSU	15/09/2009 03:53	MMS
Rationale-adoption of WBL in preser	5	14	11/09/2009 14:52	RSU	18/09/2009 14:43	RSU
Web-based facilities	5	24	01/09/2009 15:05	MMS	18/09/2009 14:44	RSU
Communication tools	6	23	01/09/2009 15:09	MMS	18/09/2009 14:59	RSU
Blogs	4	6	11/09/2009 17:52	MMS	18/09/2009 14:58	RSU
Chat	5	7	01/09/2009 15:11	MMS	18/09/2009 14:59	RSU
E-bulletins and E-boards	1	2	11/09/2009 17:50	MMS	11/09/2009 18:55	MMS
E-groups	2	3	11/09/2009 18:20	MMS	18/09/2009 14:52	RSU
Email	5	9	01/09/2009 15:10	MMS	18/09/2009 14:56	RSU
Forums	3	3	12/09/2009 23:10	MMS	15/09/2009 03:37	MMS
Definition and rationale	2	2	01/09/2009 15:07	MMS	15/09/2009 03:45	MMS
List of facilities	5	8	01/09/2009 15:33	MMS	18/09/2009 14:46	RSU
Search engines	4	12	11/09/2009 17:59	MMS	18/09/2009 14:50	RSU
Google	4	10	11/09/2009 18:04	MMS	18/09/2009 14:50	RSU
Yahoo	1	1	15/09/2009 03:35	MMS	15/09/2009 03:35	MMS
Software	1	1	11/09/2009 18:46	MMS	11/09/2009 18:48	MMS
Useful Websites for ELLELT	2	3	11/09/2009 18:06	MMS	12/09/2009 22:48	MMS
Wikis	2	5	11/09/2009 18:24	MMS	12/09/2009 23:11	MMS

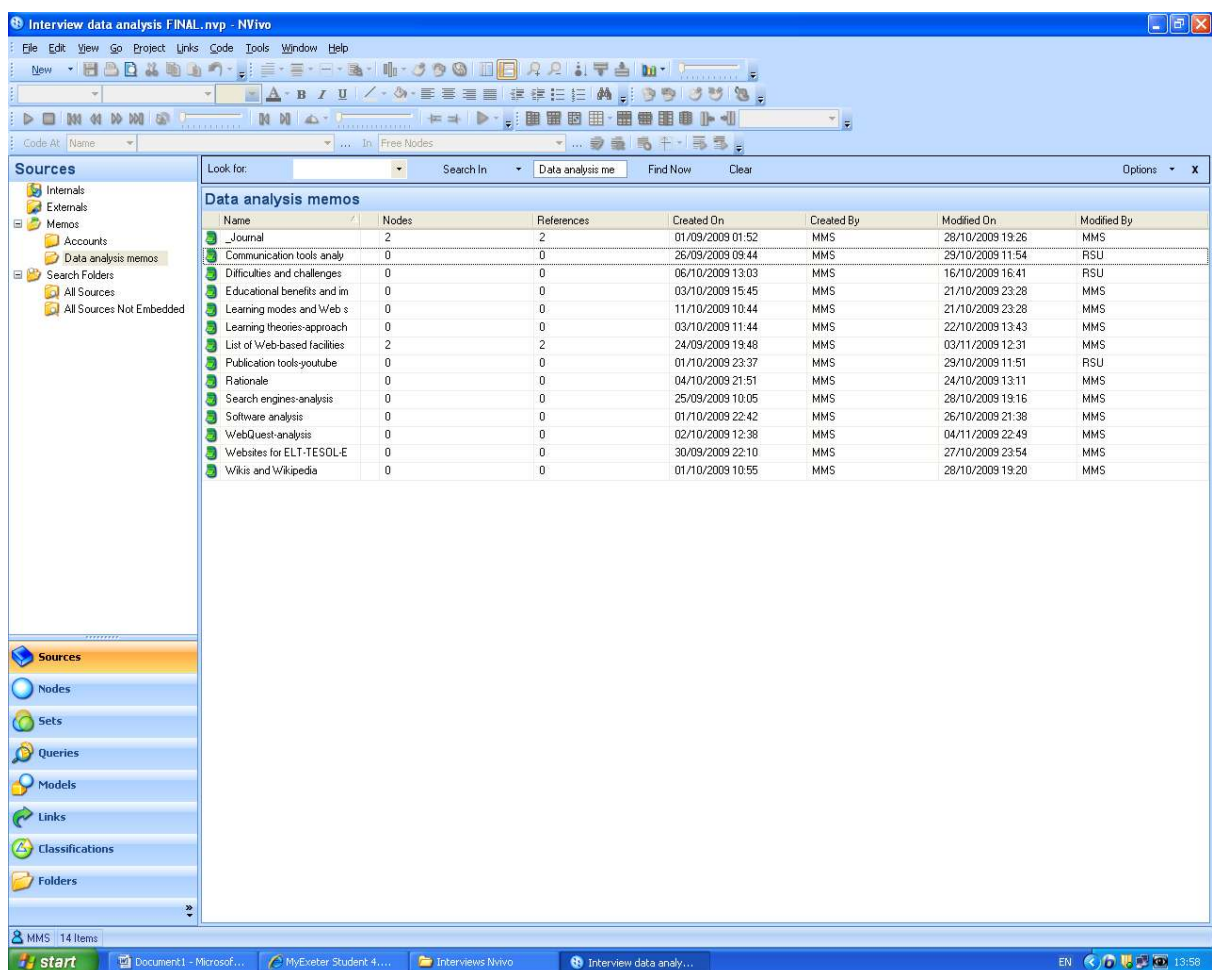
Thus, I thought about doing a second round of coding (re-coding) while reading from the nodes themselves. As new interview data were being added such as the interviewees' answers received by e-mail, new child nodes were created under some parent/main nodes. Throughout the analysis process, I was employing both *deductive* and *inductive* techniques to handle data and code them under the relevant themes.

After finishing all the needed coding, I started creating other memos (other than this main general memo entitled, "journal") based on all the nodes and the codes generated (see the screen shot below). These memos stated my reflections on and understanding of the relationships between the nodes, and thus were the basis for my thematic analysis.

They were written consistently with the nodes, and shortly after that, they replaced the nodes and I found no need to go back to the original nodes since all the nodes were summarised in each relevant memo. The name of the memo was the same as the node, with the exception of the word "analysis" that was included as part of the name to indicate purpose. However, not each node was represented by a memo. For example, in the case of general parent nodes like "educational benefits" and "communication tools", each of which contained many child nodes, parallel general memos were created to capture the whole thing (see Figure 9 below). This was intended to present a coherent account that addressed many connected sub-topics.

Finally, I had to come out from NVivo by copying all these memos into one Microsoft Word file to facilitate further reflection and analysis. This Word file was the main source for categorising, organising, and presenting data.

Figure 9: A memos view within NVivo 8



4.1.4 Selecting participants for the prototyping phase using a screening questionnaire

For sampling purposes and as a preliminary procedure, I administered a closed questionnaire to measure the extent to which the participants master the basic technical skills required for the interventions, and to identify their attitudes towards the Web. Based on questionnaire results, students with sufficient basic skills were selected to participate in the study. Using a screening questionnaire was effective because there were certain aspects (i.e. skills, competencies, and attitudes) that needed to be identified in participants. Besides, compared with other tools such as interviews and observation, it was economical and time saving for screening (Clough & Nutbrown, 2002: p118); it helped with selecting from the whole group of EFL student teachers (n=206) a small group (n=36) with the best scores.

The data obtained from the questionnaire were quantitatively analysed using SPSS (Statistical Package for the Social Sciences). In particular, the software provides a 'select cases' command (Morgan et al, 2007) that helped with selecting cases that met specific criteria related to basic technical skills and attitudes towards the Web (see Appendix H).

4.2 Results and Discussion

This section reports on all empirical data obtained in the preliminary stage. This involves the results obtained from the documentary analysis followed by the online questionnaire, and the semi-structured interviews.

4.2.1 Documentary analysis and the online questionnaire results

The conducted literature review and the concurrent documentary analysis led to the generation of a list of the Web-based new literacies deemed important for EFL student teachers (see Appendix D). As a confirmatory procedure, the list was administered online to the target participants (n=50) in the form of an online questionnaire (see Appendix E) to generate a contextualised list re-ordered in terms of importance (see Appendix I).

To re-order the generated 72 items in the list in terms of importance based on participants' responses, results were statistically analysed using descriptive statistics in SPSS. This was calculated through obtaining the statistical means for all the 72 items based on each participant's responses on the online questionnaire.

The taxonomy of Web-based new literacies given below (see Table 3) included the 72 items in the list. In other words, it involves the main headings and sub-headings of the detailed list for illustration purposes.

Table 3: Taxonomy of Web-based new literacies

<p><i>1-Online Communication and Collaboration</i></p> <p>1.1 Membership of online communities and the knowledge society.</p> <p>1.2 Composing and writing online.</p> <p>1.3 Meaning negotiation and idea sharing.</p> <p>1.4 Online language practice.</p>
<p><i>2-Online Information Management and Knowledge Construction</i></p> <p>2.1 Surfing the Web and locating information.</p> <p>2.2 Online reading comprehension.</p> <p>2.3 Critical literacy skills.</p> <p>2.4 Synthesising information and constructing knowledge.</p>
<p><i>3-Accessing Web-based English Resources and Materials</i></p> <p>3.1 Making use of the Internet as an online library for English learning.</p> <p>3.2 Accessing authentic English material.</p>

To generate a contextualised re-order of the 72 items that the above taxonomy underlies based on the Egyptian context as indicated by participants' ratings of each item in the list, calculating means as a descriptive statistical procedure in SPSS was used (Antonius, 2004; Pallant, 2007). Thus, means were calculated for all items in the list and ordered using the option of 'arranging variables in descending order according to means'. In addition, frequencies were calculated for each item in terms of importance to

identify the extent of importance that all participants attached to each item in the list (see Appendix I).

Thus, all the 72 items were re-ordered descendingly by means based on the degree of importance that participants attached to each item in the list. It is worth mentioning here that the new order illustrated in Appendix I is treated independently from the initial taxonomy represented by Table 3 above. After all, the main purpose of this taxonomy was to thematically categorise and group the 72 items under some relevant categories, and not to force a specific categorisation that might distort data analysis. Such a forced categorisation might lead to the danger of having an inaccurate statistical grouping that is neither significant nor necessary. Hence, all the items in the new order are displayed as one group (see Appendix I, Section A), and then each item is displayed in a separate table to illustrate the extent to which it is important to the target context in participants' views (see Appendix I, Section B).

This necessitated exerting some effort to identify some common themes and relationships in the resulting new order and the frequency tables. For example, I needed to explain why certain items came on top, while others came in the middle, or at the bottom; and why an item is considered 'very important' by participants, while another is considered 'not important' by many of them. Therefore, based on a comprehensive investigation of the resulting list along with the frequency tables for each item in the list, I could come out with some conclusions that I will discuss below

In referring to the individual items in this discussion, I will use a brief description or caption for each item that includes the main keywords rather than stating it as a whole (see also Appendix I, Section B). In addition, I will divide the 72 items by 3 to get three main categories each of which includes 24 items: top items, items in the middle, and items at the bottom. Further, before going through all the items in the list to explain why some of them are on top, some are in the middle, and some are at the bottom, I will provide an important conclusion here: all the items in the list are important in a sense since the majority of participants regard each one as either 'Very Important' or 'Quite Important' and very few of them regard them as 'Not Important'. Even the very last item in the list (item 1.2.12) still gets 46% of people who say that it is Quite Important (but not very important), and only 28% who regard it as 'Not Important'. This means that the differences in scores are subtle, and that it is all a question of nuance as I want to see an order of some kind for the items in the list. For this reason, in addition to the

means as a statistical way of ordering the items based on importance (see Appendix I, Section A), I calculated for each item the percentages of participants who say 'Very Important', 'Quite Important', and 'Not Important' (see Appendix I, Section B).

Here, I will start with the top 24 items in the list. The ten items that got the highest rate of approval are: 3.2.2, 3.1.1, 1.2.1, 2.2.9, 2.1.5, 3.2.4, 1.4.1, 1.1.4, 2.2.5, and 3.1.2, respectively. For those items, the percentages of 'Very Important' answers range from 86% (items 3.2.2 "Locate and utilise useful language teaching/learning resources" and 3.1.1 "The potential of the Internet for EFL learners to access resources") to 80% (items 2.2.5 "Activate their prior knowledge to make use of background information" and 3.1.2 "Access Web-based English language teaching/learning resources") (see Appendix I). For most of the items, none says they are 'Not Important': only 2 participants say so about items 3.2.4 "Download different types of resources related to TEFL" and 2.2.9 "Read purposively, selectively, and pragmatically within an online environment", and only 1 participant regards item 3.1.2 as 'Not Important'. For the other seven items, all participants regard them as at least 'Quite Important', with an overwhelming majority of over 80% who regard them as 'Very Important'.

It is quite evident from the brief analysis above that most participants believe in the potential role of the Web as an online library that enables EFL student teachers to: (1) access a wide range of resources; (2) locate and utilise useful language teaching/learning material; and (3) download different types of TESOL/TEFL resources (items 3.2.2, 3.1.1, and 3.2.4, respectively). This basic role of the Web is totally recognised in Egypt by teachers, students, and teacher educators. Some EFL student teachers participating in this questionnaire state later on in the semi-structured interviews below that they resort to the Web as an alternative to the traditional physical library. When online, they are able to easily and flexibly locate and access many useful language-related resources.

Further, another common theme represented in "Skills and techniques of the effective deployment of the Web for academic language learning purposes" emerges from the first 10 items in the list. In particular, this new theme links together items: 1.2.1 "Understand and identify ways of composing, revising, and writing online; 2.2.9 "Read purposefully, selectively, and pragmatically online"; 2.1.5 "Effectively surf the Web to locate relevant data"; 1.1.4 "Show respect and consideration to others online (netiquette)"; and 2.2.5 "Activate their prior knowledge to make use of background

information in dealing with new Web-based content". It seems that participants value those pragmatic skills and focus more on the importance of how to handle information online. For example, they value the ability to "activate prior knowledge" and make use of the already-known information in dealing with new Web-based content (item 2.2.5), as an important meta-cognitive skill. Thirty-nine participants (n=50) regard it as 'Very Important', 11 consider it 'Quite Important', and none regards it as 'Not Important'. This might indicate the importance of constructivist learning online, especially within foreign language learning contexts where it is vital to continuously build a coherent and connected cognitive structure; EFL student teachers should utilise old information for handling new information, and continuously build and refine their knowledge base.

Similarly, none of them denies the importance of showing respect and consideration while dealing with others online and applying proper behavioural rules (i.e. netiquette). Forty of them (80%) regard it as 'Very Important' and the rest (10 participants or 20%) regard it as 'Quite Important'. This indicates participants' concern with following approved rules for dealing with others as an important aspect of online interaction.

In the same vein, none of them regards 2.1.5 "Effectively surf the Web to locate relevant data" as 'Not Important' (41 participants regard it as 'Very Important' while 9 regard it as 'Quite Important'). This indicates participants' main concern with the basic function of the Web as a means for locating relevant data and the ways which should help with reinforcing this function within TEFL contexts.

Another important theme represented by item 1.4.1 relates to the "important use of English online with others to accomplish realistic and communicative purposes through different Web-based communication tools". Again, none of the participants regards it as 'Not Important' (40 participants regard it as 'Very Important' while 10 regard it as 'Quite Important'). As the interview data below indicates, many participants highlight the importance of contacting native speakers through many online tools and using English for accomplishing many realistic purposes.

Contemplating the next 10 items in the list (items: 1.1.1, 2.3.6, 2.1.4, 2.3.5, 3.2.1, 3.1.3, 1.2.7, 2.3.9, 1.4.2, 2.1.3), I could come out with common themes. The first theme is "Employing online reading of Web-based resources for language learning tasks and purposes". This is represented by items: 2.3.6 "Make use of their background knowledge to evaluate what they read" (39 participants regard it as 'Very Important', 10 as 'Quite Important', and only 1 as 'Not Important'); 2.1.4 "Use a variety of search tools

and strategies appropriate for the task at hand" (38 participants regard it as 'Very Important', 11 as 'Quite Important', and only 1 as 'Not Important'); 3.2.1 "Access online authentic language material and employ that to the task at hand" (37 participants regard it as 'Very Important', 13 as 'Quite Important', and none regards it as 'Not Important'); and 2.1.3 "Identify an information need or a language-learning need and decide on the online resources that will address this need" (35 participants regard it as 'Very Important', 14 as 'Quite Important', and only 1 as 'Not Important'). This might indicate that participants are aware of the importance of employing various techniques and strategies for reading and handling online resources to solve a learning problem or address a learning need.

The second theme is "Critical literacy skills that should be employed for evaluating online resources". This is represented by items: 2.3.5 "Employ critical thinking skills while investigating information online" (38 participants regard it as 'Very Important', 11 as 'Quite Important', and only 1 as 'Not Important'); "3.1.3 "Evaluate useful types and forms of online resources" (36 participants regard it as 'Very Important', 14 as 'Quite Important', and none regards it as 'Not Important'); and 2.3.9 "Ask and answer evaluative questions such as: Is the information accurate?" (36 participants regard it as 'Very Important', 13 as 'Quite Important', and only 1 as 'Not Important'). This brings to the fore participants' understanding of the necessity of evaluating the online resources that they read and identify those which are useful and relevant.

The third theme is "Employing computer-mediated communication (CMC) for a variety of language-learning purposes". This is represented by items: 1.1.1 "Employ appropriate Web-based communication tools" (38 participants regard it as 'Very Important', 12 as 'Quite Important', and none regards it as 'Not Important'); and 1.4.2 "Employ CMC to increase their language use and practice" (37 participants regard it as 'Very Important', 11 as 'Quite Important', and 2 as 'Not Important'). This again indicates an awareness of the vital relationship between language practice and CMC, and the important role of various Web-based communication tools in improving language for learners.

The last theme is represented by item 1.2.7 "Express in their own words new knowledge derived from online resources to convey to others their understanding" (37 participants regard it as 'Very Important', 12 as 'Quite Important', and only 1 as 'Not Important'). Here participants value the online composing and writing skills necessary for conveying personal understanding to others. This highlights language learners' active role of

constructing knowledge and phrasing what they have understood in their own words and communicating that properly to others. This way, language learners are not merely passive readers of online information. After all, prospective EFL teachers should be able to adjust any input they find to suit their teaching purposes and learning contexts.

The last 4 items (2.3.7, 2.3.10, 2.2.10, and 1.2.2) in the top 24 items in the list represent 2 main themes: the first theme "Critical literacy skills and online reading and management of online information" is represented by items: 2.3.7 "Make critical, informed judgement of online information" (36 participants regard it as 'Very Important', 12 as 'Quite Important', and 2 as 'Not Important'); 2.3.10 "Compare and contrast reliability of the online data by investigating multiple resources on the same topic" (33 participants regard it as 'Very Important', 17 as 'Quite Important', and none regards it as 'Not Important'); and 2.2.10 "Make use of cues to identify relevant and important ideas" (33 participants regard it as 'Very Important', 16 as 'Quite Important', and only 1 as 'Not Important'). As in the previous 10 items, participants here prioritise the critical literacy skills needed for managing and utilising data online.

The second theme "Considering many components while composing a message online" is represented by item 1.2.2 "Be aware of the interactive relationship between many components while composing an online message: the audience, purpose of writing, the medium, and the message" (33 participants regard it as 'Very Important', 16 as 'Quite Important', and only 1 as 'Not Important'). This is an important theme as far as language learning is concerned because it highlights some interactive components that determine how language learners should compose their messages online, a process that sounds different from traditional paper-based writing.

In what follows, I will comment on the next 24 items and which came in the middle of the list. Based on the means and frequencies tables (see Appendix I), participants regard these items as 'Moderately Important'. This means that those items are still important, but not as important as the top ones discussed above. Here I will explain why those items came in the middle through identifying some common features and themes that might connect them together.

Reviewing those items in terms of means and the frequency tables, I notice that item 1.3.5 "Exchange ideas and negotiate meaning" is not regarded as 'Not Important' by any of the participants (31 participants regard it as 'Very Important' and 19 as 'Quite Important'). This way, the item seems closer to the top 24 items than to the middle ones.

This shows the importance exchanging ideas and negotiating meaning online with others, and giving and receiving feedback. Here the idea of online collaboration and meaning negotiation comes to the fore as an important literacy aspect that EFL student teachers need to develop and transfer to their students in the future.

In the same vein, 3 items are regarded as 'Not Important' by 1 participant only: item 1.2.4 "Reflect on the quality of their own writing and language", which is regarded as 'Very Important' by 31, and 'Quite Important' by 18. This denotes the importance of reflecting on one's own EFL writing within an online context that necessitates and facilitates this reflection before publishing something; item 2.1.7 "Deal effectively with searches and selecting the most relevant results", which is regarded as 'Very Important' by 32 participants, and 'Quite Important' by 17. It seems that managing online searches and selecting the most appropriate results concern participants as an important skill that language learners should develop; and item 2.2.6 "Read across an evolving range of online texts through skimming and scanning websites" (31 participants regard it as 'Very Important', and 18 as 'Quite Important'). This reflects participants' concern with the reading strategies common in print-based reading (e.g., skimming and scanning) and the importance of applying them to online reading while reviewing a wide range of online texts.

Further, there are some common themes that connect those items. For example, a persistent theme is "Effective reading and management of online information and knowledge construction". This is represented by items: 2.1.9 "Employ strategies for finding information within websites" (34 participants regard it as 'Very Important', 13 as 'Quite Important', and 3 as 'Not Important'); 2.4.6 "Make use of various Web-based electronic formats to synthesise information and construct knowledge" (33 participants regard it as 'Very Important', 15 as 'Quite Important', and 2 as 'Not Important'); 2.1.10 "Explore new search approaches and alternative strategies when a strategy does not work" (32 participants regard it as 'Very Important', 16 as 'Quite Important', and 2 as 'Not Important'); 2.4.3 "Use a variety of tools and techniques to analyse and synthesise digital data" (34 participants regard it as 'Very Important', 12 as 'Quite Important', and 4 as 'Not Important'); 2.3.3 "Identify the type of a Webpage content" (33 participants regard it as 'Very Important', 14 as 'Quite Important', and 3 as 'Not Important'); 2.3.4 "Should be critical and reflective by going beyond the simple decoding process" (30 participants regard it as 'Very Important', 18 as 'Quite Important', and 2 as 'Not Important'); 2.2.7 "Navigate through links and connected pages to construct meaning"

(30 participants regard it as 'Very Important', 18 as 'Quite Important', and 2 as 'Not Important'); 2.1.2 "Understand advanced features provided by search engines" (31 participants regard it as 'Very Important', 16 as 'Quite Important', and 3 as 'Not Important'); 2.3.2 "Identify a website's form and general purpose to evaluate the reliability of information there" (30 participants regard it as 'Very Important', 16 as 'Quite Important', and 4 as 'Not Important'); and 2.1.6 "Use effective techniques for organising and managing keywords inserted in search engines" (30 participants regard it as 'Very Important', 16 as 'Quite Important', and 4 as 'Not Important').

Thus, most of the 24 items located in the middle of the list belong to this main theme of "Effective reading and knowledge construction online". It seems that participants regard this issue as 'Moderately Important' compared with top themes such as "Accessing online resources" and "Employing computer-mediated communication (CMC) for a variety of language-learning purposes". Perhaps, this reflects a natural sequence or development in the minds of participants of the main Web-based processes from "Accessing relevant language-learning resources" (one of the top themes) to "Employing some effective techniques and strategies needed for locating data and dealing with search engines results", and "Reading and reviewing those resources and managing data online to construct knowledge" (as 2 main themes in the middle).

A less prominent theme in the middle is "Writing and composing online to contact experts in the field, share useful ideas with others, and work collaboratively within an online community". This is represented by items: 1.3.4 "Engage themselves in discussions with experts in the TESOL/TEFL field" (34 participants regard it as 'Very Important', 14 as 'Quite Important', and 2 as 'Not Important'); 1.2.6 "Should be selective of resources during online writing" (32 participants regard it as 'Very Important', 16 as 'Quite Important', and 2 as 'Not Important'); 1.1.5 "Practise roles and responsibilities effectively within an online collaborative learning community" (32 participants regard it as 'Very Important', 16 as 'Quite Important', and 2 as 'Not Important'); 1.2.3 "Show some consideration for online audience" (31 participants regard it as 'Very Important', 17 as 'Quite Important', and 2 as 'Not Important'); 1.1.3 "Communicate cross-culturally with others world-wide" (32 participants regard it as 'Very Important', 15 as 'Quite Important', and 3 as 'Not Important'); 1.2.8 "Share ideas with specialists in the field and get feedback from them" (29 participants regard it as 'Very Important', 19 as 'Quite Important', and 2 as 'Not Important'); and 1.2.9 "Practise

cooperative, functional writing online" (28 participants regard it as 'Very Important', 20 as 'Quite Important', and 2 as 'Not Important').

Although some of the items stated above can also fit in within the top theme of "Employing CMC and Web-based tools for effective communication with others", the focus here is more on online composition and collaborative writing and sharing ideas with experts in the field. It seems that participants prioritise the issue of online communication and the many Web-based tools that can afford that, over the possible linguistic functions and language learning opportunities that these tools can facilitate. This might be attributed to the stage at which the Web-based technologies are currently utilised within Egyptian language learning contexts which is characterised by valuing the technological tools in the first place.

Finally, I will comment here on the last 24 items that come at the bottom of the list. It is worth mentioning at the beginning that none of those items is regarded as 'Not Important' by more than 14 of the entire number of participants (28%). For example, the last item in the list (1.2.12 "Embed in online messages some visual and hypertext elements") is regarded as 'Not Important' by 14 participants (28%), and is regarded as 'Very Important' by 13 (26%), and as 'Quite Important' by 23 (46%). I feel that this item was not clear and understandable for many participants. All the other items in the list are regarded as 'Not Important' by fewer participants (9 and less). However, none of those items is not regarded as 'Not Important' by any of the participants (2 participants at least regard the items of the highest means as 'Not Important').

Through reviewing the means and frequencies for all those 24 items, I reached many conclusions. First, many of those items address the knowledge aspect (i.e. understanding something) which many participants might consider useless compared with other items that address practical skills and competencies. Those items are: 2.1.1 "Understand the structure and organisation of the Web" (28 participants regard it as 'Very Important', 13 as 'Quite Important', and 9 as 'Not Important'); 2.3.1 "Understand important facts about websites and reliability such as agendas and bias" (23 participants regard it as 'Very Important', 21 as 'Quite Important', and 6 as 'Not Important'); and 2.2.2 "Understand the nature of hypertext interactions" (20 participants regard it as 'Very Important', 21 as 'Quite Important', and 9 as 'Not Important').

Second, there are some items which many participants either might have thought that they were too complicated for EFL student teachers to master, or might have

misunderstood or misinterpreted, and thus undermined them. These items include: 1.3.3 "Investigate Web-based conversations and attract collaborators to construct ideas and valuable knowledge" (26 participants regard it as 'Very Important', 19 as 'Quite Important', and 5 as 'Not Important'); 2.4.4 "Participate in and contribute to ongoing content-building conversations over the Web" (22 participants regard it as 'Very Important', 24 as 'Quite Important', and 4 as 'Not Important'); 1.3.2 "Transfer meaning across the different multi-dimensional systems made possible by the Web" (19 participants regard it as 'Very Important', 25 as 'Quite Important', and 6 as 'Not Important'); and 1.2.12 (explained above). Moreover, those items might not be very familiar to participants within the Egyptian context who are still unable (as I explained above) to recognise and value the wide range of affordances that the Web can provide for language learning and practice.

Third, there are some items here at the bottom that address "reflection and self-directed language learning" which many participants do not regard as very important to the Egyptian context. Those items include: 1.4.4 "Use reflective Web-based tools such as Blogs that foster learning English as a foreign language" (27 participants regard it as 'Very Important', 20 as 'Quite Important', and 3 as 'Not Important'); 2.4.1 "Engage in a self-directed text construction process to construct meaning" (27 participants regard it as 'Very Important', 20 as 'Quite Important', and 3 as 'Not Important'); 2.4.5 "Generate new perspectives and viewpoints by synthesising information from multiple resources" (27 participants regard it as 'Very Important', 18 as 'Quite Important', and 5 as 'Not Important'); 2.4.2 "Transform disconnected pieces of information into original text" (22 participants regard it as 'Very Important', 25 as 'Quite Important', and 3 as 'Not Important').

Fourth, some items that address "Opening online dialogue with others" are regarded as the least important ones. Those include: 1.2.11 "Compose and send effective online messages to influence, convince, and/or orient others" (27 participants regard it as 'Very Important', 20 as 'Quite Important', and 3 as 'Not Important'); 1.3.6 "Engage themselves in an online open dialogue" (27 participants regard it as 'Very Important', 15 as 'Quite Important', and 8 as 'Not Important'); and 1.1.7 "Join online e-mail discussion groups" (18 participants regard it as 'Very Important', 24 as 'Quite Important', and 8 as 'Not Important'). It seems that many participants are not aware of the important role of many Web-based facilities as means for opening dialogue for language learning and practice.

Fifth, it is surprising that some important items that address purposive online reading, creative writing, and critical literacies come at the bottom. These include items: 1.4.3 "Critique and respond to the language input by others" (24 participants regard it as 'Very Important', 22 as 'Quite Important', and 4 as 'Not Important'); 1.2.5 "Employ a range of online writing tools for creative writing" (21 participants regard it as 'Very Important', 27 as 'Quite Important', and 2 as 'Not Important'); 2.1.8 "Make rapid navigational decisions" (23 participants regard it as 'Very Important', 22 as 'Quite Important', and 5 as 'Not Important'); and 2.3.8 "Use clues of a Webpage to evaluate it as an information resource" (20 participants regard it as 'Very Important', 21 as 'Quite Important', and 9 as 'Not Important'). Many participants have already ranked highly similar items dealing with critical literacies which are among the top 24 items.

In this section, I provided an analysis of the 72 items by dividing them into three main categories (i.e. top, middle, and bottom) each of which contains 24 items. This analysis is intended to explain based on my personal understanding why those items come in this particular order after they were administered to Egyptian participants.

4.2.2 Interview results

As mentioned above, consistent with the second question of the study, "Which Web-based facilities are beneficial to Egyptian EFL student teachers, and why and how can they be beneficial?", the main objective of the interviews was to identify those Web-based facilities that could be useful to Egyptian EFL student teachers in general, with specific reference to AUCOE, and to state why and how these facilities could be useful.

Participants who were interviewed were mainly EFL student teachers (n=6) and EFL teacher educators (n=13). All of them also participated in the online questionnaire of Web-based new literacies (see Table 2 above). Therefore, they were selected based on their interest in the research topic and their experience with and relevance to the Web and its applications within language learning/teaching contexts (see Table 4 below).

Table 4: Demographic Data of Interviewees (n=19)

Name (pseudonyms)	Gender	Job	Experience and Relevance
Amin	Male	EFL Teacher Educator	He has a long, wide experience for more than 12 years in TESOL and employing the Web for language learning/teaching purposes. He conducted many research studies dealing with

Name (pseudonyms)	Gender	Job	Experience and Relevance
			employing the Internet and many Web-based applications for ELT purposes.
Bossy	Female	EFL Teacher Educator	She has an experience in TESOL for 10 years. She uses many Web-based applications in her teaching.
Emam	Male	EFL Teacher Educator	He has a wide experience of more than 10 years as a trainer who gave many lectures and workshops related to the applications of the Web in TESOL. He also has a strong background in educational psychology and language learning theory, especially the different approaches that can be employed within Web-based learning environments. He recently got his PhD in Educational Psychology at the University of Manchester.
Emy	Female	EFL Student Teacher	She has experimented for more than 5 years since her graduation with many Web-based applications. She employed these for language learning purposes when she was a student teacher.
Gab	Male	EFL Teacher Educator	He has been working as a teacher educator for more than 15 years. His main concern was to employ the Web with his students (i.e. EFL student teachers) for learning, communication, and assessment purposes. He experimented with many Web-based facilities in his teaching and came out with some useful conclusions on how to integrate the Web within the Egyptian context.
Hana	Female	EFL Teacher Educator	She is currently doing her PhD in education and TESOL and the University of Newcastle. She has an experience of around 10 years in TESOL. She employed the Web for many research purposes.
Helen	Female	EFL Student Teacher	She has a good experience in teaching English at schools employing new technologies. She has already been to the UK in a short-term fellowship to study new approaches in language teaching.
Latif	Male	EFL Teacher Educator	He has an experience of more than 10 years in TESOL. While he was doing his PhD at the University of Essex, he employed many Web-based facilities for study and research purposes. He is interested in the possibilities that the online spaces enabled by the Web provides for language learning.
Mark	Male	EFL Student Teacher	He has been using the Web for language learning purposes since he enrolled in the pre-service teacher education programme provided by

Name (pseudonyms)	Gender	Job	Experience and Relevance
			AUCOE. He found many uses of the Web in this regard, especially for finding language-learning resources.
Merry	Female	EFL Student Teacher	As a student teacher, she has been using the Web for a variety of communication and learning purposes. She tried hard with her colleagues to find ways of employing the Web for academic purposes.
Mino	Male	EFL Student Teacher	As a student teacher, he has been using the Web for a variety of communication and learning purposes. With his colleagues, he managed to employ many Web-based resources for resolving some language-learning difficulties encountered while learning some language courses.
Nova	Female	EFL Teacher Educator	She has a good experience with employing the Web in TESOL, especially while doing her post-graduate degree in TESOL in a US university. She employed many collaborative online tools (e.g., Google Documents) while learning cooperatively with her colleagues to produce some projects. She also employed WebQuest for language learning purposes.
Rima	Female	EFL Student Teacher	She has been using the Web for language learning purposes since she enrolled in a pre-service teacher education programme. She found many uses of the Web in this regard, especially for finding language-learning resources and reaching academics in the field.
Robby	Female	EFL Teacher Educator	She has a 7-year experience in TESOL. She has already trained EFL student teachers on how to employ some software and Web-based tools for language learning purposes. She used the Web in many ways while doing her Master degree in TESOL.
Sabo	Male	EFL Teacher Educator	He has a wide experience for more than 15 years in TESOL, linguistics, and language learning theories. He has recently supervised MA studies employing the Web for language learning purposes.
Salama	Male	EFL Teacher Educator	He has a good experience of more than 5 years in employing Web 2.0 tools for language learning purposes. He did his MA on new technologies and Web-based applications in TESOL at the University of Manchester. He gave many conference presentations on using some Web-

Name (pseudonyms)	Gender	Job	Experience and Relevance
			based facilities for improving language skills.
Sally	Female	EFL Teacher Educator	She has a wide experience for more than 20 years in TESOL, linguistics, and language learning theories. She has recently supervised research studies employing the Web and other innovative techniques for language learning purposes. She did some research on online learning in TESOL and established a Blog for in-service English teachers to exchange their experiences in teaching some new language courses at Egyptian schools.
Sam	Male	EFL Teacher Educator	He is a trainer of in-service English teachers in one of the Egyptian governorates. He is interested in employing many Web-based tools for training, communication, and language practice. He has been to the US as part of a training programme on how to employ the Web for language learning purposes.
Sherry	Female	EFL Teacher Educator	She has an experience of more than 9 years in TESOL. She is doing her PhD on employing some Web-based tools under a blended learning design within an EFL pre-service teacher education context. She is interested in employing the Web for academic purposes and language practice.

Based on the interviewees' responses that were elicited by many questions (see Appendix F), the list below (see Table 5) was concluded. I will follow this list with details based on interview data to explain why and how these facilities can be useful based on participants' viewpoints and experiences. After that, I will outline some main categories and themes that emerged from data, and which are relevant in a way or another to the above question. After all, these data will be utilised in the prototyping phase, especially as far as learning theories and educational benefits of the Web are concerned.

4.2.2.1 Web-based facilities list

The following list of Web-based facilities (see Table 5 below) was generated from the interviews. All the items in the list will be explained in detail in terms of rationale (why and how they can be useful) based on the thematic analysis of the interview data obtained from participants. Examples and excerpts will be provided in the sections below the list

to clarify and justify the delineation of the suggested categories and sub-categories in the list.

Table 5: Web-based facilities list

Main List	Sub-categories	Main points
<p><i>1- Communication and social networking tools (divided by mode)</i></p>	<p><i>a) Synchronous tools:</i> online chat, video conference, and Yahoo! Mail text chat.</p> <p><i>b) Asynchronous tools:</i> E-mail and e-groups, e-blogs, discussion boards, Facebook, publication tools (e.g., YouTube), and photos sharing (e.g. Flickr and Google photos).</p>	<p>-Both synchronous and asynchronous tools can be used for different learning purposes.</p> <p>-They enable student teachers to interact with native speakers and establish academic networks.</p> <p>-E-mail can be used for global communication and can improve learners' composition and writing skills.</p> <p>-E-groups make communication and networking easier, and foster collaborative learning.</p> <p>-Blogs can be used as platforms, diaries, and online journals to enable student teachers to share ideas, argue about different topics, develop discussions, and express themselves freely in English.</p> <p>-Blogs can be dangerous tools if learners take information there for granted.</p> <p>-Chatting, both orally and in writing, helps with improving communication skills in English and fostering language practice.</p> <p>-Chatting sometimes violates grammatical rules and accuracy in language learning.</p> <p>-Forums can be used for developing discussion in different language learning topics.</p> <p>-Social networking tools (e.g., Facebook and YouTube) have become so important resources for language learning since they</p>

Main List	Sub-categories	Main points
		can be used as platforms for ideas sharing, effective communication, and the exchange of language learning resources.
2- Data locators (search engines)	Google and its facilities (e.g. Google Books, Scholar, Calendar, and Documents), Yahoo, and AltaVista.	<p>-Locating relevant data is an essential task for language learners.</p> <p>-Many search engines can be used for locating data, and each one tries to distinguish itself.</p> <p>-Google is the most prominent search engine that provides many services.</p> <p>-Google is relevant to language learning as it provides translation and other academic services such as Google Scholar and Google Books.</p>
3- Collaborative knowledge construction and information sharing tools	These include Wikis (e.g., Wikipedia and Wiktionary), online documents (e.g. Google documents), and enquiry-based, online learning activities such as WebQuest.	<p>-Pedagogically, these tools foster knowledge construction and information sharing on a wider scale.</p> <p>-Wikis, especially Wikipedia, are rich sources of information for language learners; all learners all over the world can collaboratively write relevant contents.</p> <p>-Wiktionary enables all language learners to explain useful language uses and idiomatic expressions.</p> <p>-Google Documents is another useful facility that enables co-authoring and sharing ideas.</p> <p>-WebQuest is a Web-based learning model that is based on enquiry-based learning; it can be used in various ways for conducting language learning projects.</p>

Main List	Sub-categories	Main points
4- Online language learning resources	These include: -Online dictionaries and encyclopaedias; -General educational websites; -English learning websites; -Literature websites.	-The Web can act as a rich online library for language learners. -It provides many educational resources and official language learning websites that learners can consult.
5- Software and applications	These include Microsoft Word, Second Life (SL) or virtual world, Moodle and Sloodle, English word builder, E-Blackboard, and Yahoo Messenger.	-Many software programmes can be used along with many Web-based facilities to foster language learning. -Both free and charged software programmes and applications can be used for learning.

In the following section, I will present a detailed discussion of this table, which involves a summary of the interviewees' voices. This discussion will be supported with excerpts and examples based on the obtained data.

1-Communication and social networking tools

While Web-based communication tools are mainly used for social and entertainment purposes, they can also be employed effectively for learning purposes. According to some participants, both synchronous and asynchronous modes can be employed for academic purposes in the AUCOE context. The choice between the two depends on many factors such as purpose, task, convenience, and preference. Many participants assert that each mode has its own advantages; while the synchronous mode enables real-time interaction that simulates real-life situations needed for language practice, the asynchronous mode allows for reflection and working according to one's own pace. For example through e-mail, according to Amin¹ and Sherry, teachers can upload materials and send them to student teachers to work on at home. Among the Web-based communication facilities stated by participants, only chat and online video conferencing belong to the synchronous mode, while the remaining facilities (e.g., Blogs, e-mail, and e-groups) are asynchronous.

¹ This is a pseudonym. All the names mentioned in the chapter are pseudonyms, not real names.

Some participants (Bossy, Sherry, Sabo, and Emy) argue that the main advantage of these tools for language learning is that they enable interaction with native speakers. Other advantages include: (1) creating networks, as Salama states; (2) exchanging knowledge and experience, as Sabo notes; (3) developing main language skills and improving other language aspects such as vocabulary and grammar in Amin's viewpoint.

Sally argues that on the local level, through contact with each other and with their tutors, students can feel comfortable using the language, and thus, their language can be improved a lot. On the psychological level, such Web-based communication tools help many shy students to resolve these psychological problems.

According to many participants, the Web-based e-mail is the most widely used Internet application. It can be useful in global communication that goes beyond the boundaries of the classroom. For example, Sally indicates that 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". Amin, Sally, and Sabo regard e-mail as a very widespread tool for improving and fostering students' communication and composition skills. They contend that the editing tools the service provides (e.g., grammar and spelling checkers and dictionaries) are very important in this regard. Amin thinks that e-mail, thus, can be used for teaching many language aspects such as reading, writing, grammar, vocabulary, and spelling. Latif contends that e-mail "can simply foster communicative abilities, and even typing skills".

Amin relates how e-mail enriches functions of easy editing, storing, and manipulating. Pedagogically, e-mail is capable of bringing "peripheral persons into the instructional mainstream". Amin and Marry contend that e-mail allows for exchanging different types of files that can be attached to e-mail messages. In this respect, Sally mentions a number of benefits of e-mail such as: enhancing students' writing skills; giving students chance to socialise and get to know others' cultures; and allowing for collaborative work that can help to tackle some difficulties with understanding basic concepts. Mino daily receives hundreds of e-mails in English and this allows him to catch some idiomatic expressions.

Emam, a teacher educator with experience in how to employ the Web for TEFL purposes, relates how he found e-mail a useful educational tool in training; with his trainees, he used e-mail to organise the materials and to make notes on the content of

the workshop. According to two participants (Amin and Gab), even the simplest use of e-mail by teachers to send teaching material, tasks, feedback, and receive written assignments from students, can save much time and effort. However, Gab raises a cultural boundary of using e-mail related to gender. Females, especially in Upper Egypt, are reluctant to share their e-mail addresses with males.

E-groups are always associated with e-mails; using an e-group, as some participants note, is quite similar to using e-mail; however, e-groups facilitate communication among people of similar interests at a wider level. What distinguishes e-groups is that the e-mail sent to the group mailing address is received by all group members. E-groups for Emy and Mark are much more useful than merely using e-mail. Further, using e-mail alone is not a substitute for using the Web itself, which can open wider horizons for language learners.

For Amin, e-grouping is a strategy connected with cooperative and collaborative learning to connect together people interested in the same topic. Hana thinks that e-groups are like Blogs as both allow for exchanging ideas and experience. Sam considers them similar to forums, stating that the choice between both is a matter of personal preference. Emy found e-groups useful to her; they enabled her to know professors and teachers in TESOL/TEFL and get advice from them. Besides, she thinks that language materials can be published there and learners can receive focussed guidance and direct answers that may save them much time and effort. For her, e-mailing a question to the whole group can be better than e-mailing one person. Sam points out that an e-group can be used as an online study group. In the same regard, Sherry mentions some features that distinguish e-groups: "daily updated, informative, and allows the members to receive information via their personal e-mail addresses".

Blogs can be an important communication tool that enables people to share ideas, argue about different topics, develop a discussion, and express themselves freely. Participants have different views regarding the importance of Blogs for TEFL and ELL. Nine of them had positive attitudes; they regarded Blogs as a very useful tool that enables self-expression and develops students' writing and reading skills. For example, Robby looks upon Blogs as a tool that can help with improving the status of TEFL in Egypt because different categories of interested people "can meet together online on one platform to share useful ideas and experience". Both Amin and Sally perceive Blogs as personal diaries or e-journals, which students and teachers use as a means to vent their thoughts

and feelings. Hana regards Blogs as "the most important tool" through which discussion in the target language can be fostered, especially when a 'class Blog' is established.

Sally relates her experience with creating a Blog for some in-service EFL teachers to "exchange experience and express opinions and reflections about teaching different language aspects and skills". Launching the Blog was motivated by the difficulties that many teachers were having with a new version of an English course. While using the Blogs, teachers were trying to get ideas and advice as to how to manage the demands of the course given the many limitations of the school system. She found the tool useful, but she needed to "direct participants, guide them, and put them on track", especially when minor, irrelative issues were raised.

In the same vein, Sabo highlights the important role that Blogs play as a "communication tool for sharing experience with others in the TEFL area". Emy favours Blogs because they enable her to access some famous articles. Similarly, Helen regards Blogs as important for sharing experience and information; along with group activities, Blogs can foster many language skills, such as "communication skills, writing skills, arguing, and cooperative skills".

Technically, Salama states that Blogs allow for a "medium degree of control" by the administrator; learners can contribute as writers, or just comment on others' writings. Hence, it is a semi-controlled tool that should be carefully selected for educational purposes. Besides, for any project using Blogs to succeed, clear planning should be done. According to Salama and Sherry, Blogs can be employed as very good means of teaching writing, especially because learners can "write a story in turns using the comments feature", while the tutor comments on their work.

On the other hand, two student teachers (Mark and Merry) do not recommend Blogs; they regard them as "very dangerous tools" that convey the "personal opinions of members" which could be right or wrong. Students "sometimes take these opinions for granted without any negotiation". Besides, the academic contents in some Blogs are sometimes too difficult compared with other resources such as Google Books.

Participants agree that the synchronous mode enabled through online chat can be useful for developing fluency in the English language. Based on many responses, some useful points attached to chatting in ELL were concluded:

1. Accessing native speakers is very important as it updates students' language by, for example, enabling them to acquire some new idiomatic expressions;
2. Chatting can help students with developing oral and/or written fluency;
3. Exchanging files is also an important advantage saving users much time;
4. Many chat rooms on different topics (e.g., education, TEFL, and educational technology) are available for language learners;
5. When well planned, chatting in TEFL can be very useful; this way, it can promote students' reading and writing skills. This could happen if, for example, "a group of students agree on reading a piece of work, write their reflections on it, and then meet online to chat about it";
6. Chat always brings real experience with teaching/learning as well as problem solving to the fore; this might be more effective than the mere theoretical reading of books;
7. Chat can simultaneously develop many language skills;
8. When someone chats with another with better English, his/her language is likely to improve. This is closely relevant to socio-cultural theories, especially the ZPD concept.

On the other hand, some participants undermine any value of chat in language learning contexts. For example, Salama and Robby points to how through chat grammatical and spelling rules are violated (e.g., using shortcuts like 'ic' for 'I see'). From a pragmatic perspective, Mino and Mark think that chat as a learning tool is useless in academic study; chat is only for language practice, not for getting useful academic information, and hence can be used for correcting language errors in discourse.

Forums (discussion boards and Bulletin boards) are useful for discussing topics and sharing ideas online. Based on their real experiences in their post-graduate studies, some participants elaborated on how Forums were useful to them in many ways:

1. They connected them with their tutors and fellow students;

2. They enabled the exploration of different views from different contexts based on different experiences. Some university websites provide this facility for students as part of the course;
3. Through Forums, students can accomplish group tasks, exchange ideas, and comment on each other's contributions and perspectives;
4. They are important, as Emam argues, for developing discussions regarding a specific theme or a certain problem.

One concern is that many people are confused between Blogs and Forums. Recognising the similarities existing between them, Emam gives a clear-cut difference:

Blogs tend to be the individual's diary and his/her reflections as well as remarks on events, either the personal, the social or the political. The Blog tends to be initiated on an individual basis although may turn to be group-based later on. On the other hand, Forums or discussion boards target group dynamics and interaction around a topic of interest.

Social networking tools have become very popular with the development of Web 2.0 technologies. Nowadays, Internet users are no longer the mere passive viewers of the information provided to them; they are allowed to publish online photos and videos to share with the whole world community. This way, people become more connected with each other, and thus cultural understanding is more promoted by the materials that people share together. This has educational implications as far as language learning is concerned.

Facebook is globally gaining ground as it enables users to: (1) create their own profiles; (2) add friends, send messages to them, and chat with them when possible; (3) create groups of people with common interests; and (4) upload photos and videos to be viewed by all friends in the list. According to some participants, Facebook is a social website that links people together and mixes fun with seriousness. For Sam, it is "an informal portal to gather different teachers and student teachers from all walks of life". It is distinguished by being a "concise, precise, focussed, and liberal" tool where one can add videos, articles, and notes on his/her own page for friends to see and read "without leaving the page". Mark used it to add persons from UK and USA to his friend list to chat with them. Throughout this interaction, he was able to "pick up more words and know about other people's culture".

YouTube is a video sharing website that enables one to share his/her video files with the whole world community. Even without registration, anyone can search for and locate any videos s/he wants. One can locate any videos and can search in both Arabic and English. According to some participants, it is very useful in this EFL teacher education context as it enables one to watch some language-related educational segments and vivid demos. Further, Emam contends that YouTube can be a good tool for enhancing conversation skills:

Imagine when a language learner gets exposed to a live conversation which depicts a certain situation in life. This can enhance the choice of vocabulary in conversations and also shows the use of the different vocabulary in the situation...This kind of exposure to live conversations may enhance the awareness of the learners to the differences between standard and everyday language.

2-Data locators

Many participants contend that most of the tasks that teachers and learners do online relate to locating relevant data. The following list of search engines was obtained from participants: *Google, Yahoo, AltaVista, Excite, InfoSeek, and Ask.Com*. All participants admit that *Google* and *Yahoo* are the most prominent search engines. For example, Amin admits that, "Google and Yahoo are known to all people, even beginners", and Gab notes that "both are known to everybody, easy to use, and powerfully existing on the Web".

Twelve participants prefer Google to Yahoo regarding it as the "most widely known and used" search engine with many features, facilities, and services that distinguish it. Latif, for example, describes Google as a "multi-purpose search engine" that has many things to offer to pre-service EFL student teachers. Gab reports that most of his students like Google as a search engine, while only few prefer *Yahoo*. Helen, as a student teacher, contends that Google is her favourite, especially Google Scholar, because "it always gets what one needs". She also thinks that the main reason why Google is so popular and widely accepted among people is that "it updates itself with the most recent and current information". Merry describes Google as "very fast and always gives what one wants". For Mino, Google, as a search engine, is 90% useful: "Google returns hundreds of hits for me with closely relevant results". For Sherry, Google, compared to other search engines, "comes on top as it provides learners with a great amount of papers, books, and videos about any topic they choose". On the other hand, Robby prefers

Yahoo to *Google*, thinking that *Yahoo* is more comprehensive. Sally also reports that sometimes she advises her students to resort to *Yahoo* for getting some videotaped lessons.

Throughout discussion with participants, I reached the conclusion that both search engines have similar features and services, though the number of those provided by *Google* might exceed those provided by *Yahoo*. Each search engine distinguishes itself; *Google*, for example, provides *Google books*, a service that *Yahoo* and other search engines do not provide. Therefore, the question of which one to use relies heavily, as implied by some participants, on some factors like appeal, familiarity, and personal preference.

Moreover, four participants (Emy, Salama, Sally, and Gab) highlight some general features distinguishing *Google*. Emy argues that through *Google*, EFL student teachers can "update themselves with the most appropriate TEFL methods and the latest learning activities and resources". Besides, she draws attention to an important language feature: *Google* can be localised (e.g., Egyptian *Google*). Salama highlights another important feature: "*Google* organises search results into groups" (e.g., scholar results, shopping results, Video results, and Web definitions) and "gives summaries, similar pages, and cached pages". Sally notes that *Google* gives material in different forms, and hence facilitates learning, comprehension, and creative adaptation by users. Gab highlights the filtering feature enabled by *Google*, which saves much time and effort: the ability to locate specific file types (e.g., PowerPoint presentations, PDF files, Word files, and video files). This is useful when a student needs "specific types of files without being overwhelmed with a big number of returned results". He reports that he always teaches his students how to use the 'advanced search' feature in *Google* to do this.

More specifically, some features and services enabled by *Google* are directly attached to language learning. One of these features is 'Google translation'. *Google*, as Sally notes, can give the translation "on-demand in the language requested". This tool, for Emy, provides text translation that helps her with translation classes. However, Amin cautions against over-dependence on this tool for translation from English into Arabic, and vice versa because "the output is usually incomprehensible". The same concern is also raised by Hana who does not like the "literal meaning" that *Google* returns, which is unreliable. She recommends using online dictionaries as they provide the same service.

Therefore, Google translation, as Salama suggests, should be used only "as a supportive tool"; over-dependence on it may result in "students losing some essential skills required for learning English, such as guessing the overall meaning". From student teachers' perspective, Google translation is useful to some extent. Merry used it to prepare for the translation test; it was beneficial to some extent, but in many aspects, it was not so useful. Similarly, Mino regards it as useful, "but in a limited way".

Other relevant services of Google, as mentioned by some participants, include Google Scholar, images, e-mail, Calendar, Reader, iGoogle, and Google Documents, all of which can be employed for academic purposes. In particular, Google Scholar enables access to a wide range of academic resources, especially Google Books. In this regard, Hana reports that when students have academic assignments to do, "they can resort to Google scholar as a useful tool for allocating academic papers". Salama relates how Google Reader is a useful service: "If one likes to read the news or tips on English learning from 10 website, instead of going to all these websites, Google reader can regularly bring all the new postings to his/her PC with any updates". Google Calendar, for Mark, is a very useful tool; it is like a complete history given day by day. He regards iGoogle as a tool that provides news, and thus makes one in touch with the external world. Google Documents, as Nova (a teacher educator) claims, is an important service for co-writing, co-authoring, and knowledge sharing.

These features and/or services make Google relevant to TEFL. Hana asserts that Google can help EFL student teachers with their writing about general topics in their writing courses. Further, Mark relates how Google, especially Google Books, could resolve many language problems and difficulties encountered by Egyptian EFL student teachers; they struggle sometimes with understanding the English of their tutors or the writing style of many courses. Google can help them to overcome such problems by providing more simple resources that might remove the pressures associated with complex language.

3-Collaborative knowledge construction and information sharing tools

These tools involve all facilities and services that have become so prominent with the development of Web 2.0 and its social networking tools like Wikis, YouTube, and Google Wave. Pedagogically, they foster knowledge construction and information sharing in a collaborative way and on a wider scale that is not restricted to the classroom

context.

Many participants are familiar with Wikis, especially Wikipedia, and use them for getting definitions of new topics. For example, Latif argues that 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 update the participants via e-mail of every change. In this environment, according to Salama, language learners can motivate each other. Amin gives details on how he uses Wikipedia in his career; as a translator, he uses it for getting the new specialised vocabulary, and thus, building his schemata in the target language before starting translation. In Amin's viewpoint, what distinguishes Wikis, especially 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".

Mark reports using Wikipedia for finding "complete subjects and relevant images" which are easily stated and displayed. For him, what distinguishes Wikipedia is that its content is usually true; it addresses many fields; and is available in many languages. Similarly, Mino perceives it as "the first standard tool" where he can easily find any single piece of information.

Designed as a lexical companion to Wikipedia, Wiktionary is a collaborative project to produce a free-content multi-lingual dictionary. It includes not only word definitions, but also enough information to understand vocabulary. Based on experience of some participants, Wiktionary is closely relevant to language learning as it can help with developing language competence by providing useful information on words, phrases, and idiomatic expressions with realistic examples.

Concerns attached to using Wikis, especially Wikipedia, exist, especially the one that relates to reliability since anyone can write and edit anything there. For example, two participants (Helen and Hana) prefer Blogs to Wikis regarding the latter as unreliable. Amin suggests that this reliability problem can be resolved with time as people check and edit the online content. Usually, people are unlikely to include wrong information, and if anyone finds wrong or inaccurate information, s/he would edit this. An effective

strategy to confirm, as Amin suggests, is to double-check by Googling the same topics. Another concern expressed by Merry is that Wikipedia does not provide complete accounts on all topics, and some accounts are not updated. Thus, there is no balance in the volume of data and the amount of details provided on all topics.

The recent increasing use of Wikis, especially Wikipedia, for research and study purposes has raised arguments. Throughout my discussions with participants, I could come out with some conclusions about Wikis in general, and Wikipedia in particular. Academically, although the information on Wikipedia can be academically accurate, it is not advised to cite Wikipedia, or any other non-academic resources like Blogs and e-groups. However, Wikipedia can be useful to students and scholars as one of the best resources to consult. Some teacher educators use it as a starting point whenever there is anything new that they would like to know about. If one encounters a term like CALL, for instance, for the first time, s/he should first seek to have a simple idea about the topic (e.g., definition and features) before going through more specialised academic resources like books and journals. Additionally, one might want to know the main authors and/or pioneers in the field to Google them to assure their authority and see their publications. Finally, one might want to identify the most important references and resources in the field to consult. This way, Wikipedia is important for EFL student teachers in the course of their academic study.

As far as language learning is concerned, teachers and students can resort to Wikis when they need to get reading materials about rare topics, or when they want to build their schemata. In this sense, Wikipedia can be used to prepare for essay writing, especially when the topic is new and/or unfamiliar. Also, the rich amounts of data available there make Wikipedia a useful resource for content-based teaching, teaching reading, and teaching translation. Besides, the editing feature in it allows for developing writing and thinking skills.

Google Documents is another important service that enables sharing ideas and writing things cooperatively. Hence, it is, as Nova states, a good facility for co-writing, co-authoring, and knowledge sharing. Nova used Google Documents to accomplish group work tasks and share her perspectives on various issues pertaining to some classes with other classmates during her post-graduate studies. She found this beneficial in connecting with her instructors and peers despite the diversity in schedules.

Furthermore, this tool helped her to maintain communication with her professors, even when not on campus. On a pedagogical level, Google Documents could advance students' critical thinking, reading, and writing skills. They can also develop students' listening and speaking skills because students have to comment on each other's work until they reach an agreement on the shape of the final product.

WebQuest is a well known and long standing Web-based learning resource. According to Amin, what is particular about this model is that it draws upon many learning and teaching approaches throughout the process of accomplishing the learning tasks, such as: cooperative learning, enquiry-based learning, constructivist learning, problem-based learning, and socio-constructivist learning. Nova also reported learning a great deal through working with other colleagues on WebQuests.

4-Online language learning resources

Based on their experience, many participants recommend some websites as useful for EFL student teachers. Google, according to many participants, comes on top as the best and most useful website because it can direct users to some specific and relevant websites. Those websites can be classified into the following categories: General educational resources and databases websites (e.g., ERIC); official English learning/teaching websites (e.g., British Council and BBC websites); English literature websites (e.g., sparknotes.com recommended by 2 student teachers); and online encyclopaedias and dictionaries (e.g., encarta.msn.com, onelook.com).

Two student teachers, for example, report resorting to some websites during the TESOL/TEFL methodology course to obtain easier and simplified materials. In the same vein, an EFL teacher educator considers homepages and websites made by specialists in English and English learning as useful. Some student teachers mention "quizzes" available on those websites as very useful in this respect. Similarly, two teacher educators recommend corpora or corpus websites as rich resources for finding word associations. They are also useful when one is in doubt about the way a word or a phrase is used in real-life contexts. Thus, one can check and verify his/her language by making use of a wide range of authentic English texts available online.

5-Software and applications

Some participants mention some relevant software programmes and applications, whether free or not. A famous application is Microsoft Word, which can be used, for example, for writing e-mails offline, editing them, and saving them in files before sending them. Many student teachers and teacher educators report how the application was useful, especially when there was no Internet connection; it can be used for writing essays, diaries, assignments, and different useful accounts. Many participants contend that the language tools in the application (e.g., the spelling and grammar checkers, the editing tools, and the available dictionaries) are extremely important for language learners.

Some participants mention some paid applications such as Blackboard and Hotpotatoes. Blackboard is used for online teaching and e-learning. Another participant focussed on Second Life (SL) or Virtual World and how important it is for language learning as a 3-D virtual environment that allows learners to explore different parts of the world. Also, Moodle was recommended as a virtual learning environment that can function as a course management system. It is designed to introduce online courses like Blackboard and WebCT. A participant suggests Paltalk as a chat software which is full of different rooms. Like Yahoo! Messenger, it is mainly for voice chat, but can afford text chat as well.

4.2.2.2 Rationale behind using the Web and its facilities

After detailing the main list that answers the second research question, it sounds logical here to elaborate more on the second part of the question by providing a general rationale behind using the Web to mediate language learning. This was concluded from participants' answers to the question: "Why do you think the Web is generally useful for English language learning?" (see Appendix F for the interview guide).

Bossy perceives the Web as a medium of a unique nature, or as "a multi-purpose tool with a vast array of modes, services, facilities, and resources that can be employed in ELL." In this sense, the Web becomes: (1) a "medium for learning and instruction" providing many learning opportunities and options (e.g., distant learning, e-learning, and blended learning); (2) a "communication tool" that can replace all traditional means of communication; (3) an "online library that is bigger, richer, more flexible, and more comprehensive than any physical library in the world"; and (4) an "entertainment tool"

that can act as radio, cassette, and TV. Thus, the Web for her is an "ideal medium for learning" that can effectively serve language teaching/learning.

She also contends that the English language is prominent on the Web. This gives students "a variety of real resources and situations that can speed up their acquisition of the language providing them with many linguistic experiences which may be impossible to find so intensively and comprehensively within any formal educational setting". She also regards the Web as "the best tool that allows for effective exposure to English as used in real-life situations" by compensating for the absence of a natural English-speaking community.

Similarly, Emam suggests that "the rich materials and resources the Web provides can definitely improve the learning of English in terms of the main language skills: speaking, writing, reading and even listening". Assuming that these materials and resources are both rich and diverse and can suit language learners at different levels, the Web becomes very useful and effective.

Based on his wide academic expertise in this area, Amin states that from a broader pedagogical standpoint, Web-based learning "should not be narrowly perceived merely as fun and luxury" because it can also encompass and foster many other teaching/learning approaches, such as socio-constructivist learning, cooperative/collaborative learning, and problem-based learning. Hence, the Web, more than any other commonly used instructional aid, "caters for the different needs of a broad spectrum of learning and teaching styles of both students and teachers". The most significant aspect about Web-based instruction, for him, is the ubiquitous nature of the Internet (i.e. being available anywhere at anytime). Hence, "learning can be provided, established, and acquired, both synchronously and asynchronously, in such a way that learners won't miss anything".

Sally contends that Web-based learning definitely "solves many psychological problems" that some students may experience when involved in face-to-face interaction, such as being timid, reserved, or introvert; when able to use the Web, they may cope better with the external world since "feeling good at something would help students to cope better with society and improve their learning". Besides, many language learners will feel at ease when they interact indirectly and/or asynchronously with others in a relaxing environment where they can reflect and communicate freely at their own convenience.

In short, the rationale that the participants provided can be grouped into the following themes: (1) the unique nature of the Web as a multi-purpose tool that can replace traditional tools; (2) the great chances the Web provides for exposure to language; (3) the powerful presence of the English language on the Web; (4) the ability of the Web to encompass many teaching/learning approaches/methods, and to resolve students' psychological barriers to learning; and (5) the rich materials and resources the Web provides, and which can help students with developing their language skills.

4.2.2.3 Learning theories and approaches

Consistent with this rationale are the learning theories, approaches, and techniques that participants associated with the Web, especially within an ELL context. This section is particularly important, as it should directly inform the preliminary design framework that should involve a language learning theory or approach. Some participants focussed on certain relevant learning theories and approaches including blended learning, socio-constructivist learning, socio-cultural theories, especially Vygotsky's ZPD concept, and the co-operative/collaborative learning approaches such as online language learning communities and community of practice (CoP).

More specifically, three participants (Amin, Latif, and Sally) regard blended learning as a balanced approach that is appropriate to the Egyptian context. Amin's rationale is that this approach is "appropriate at the present phase in which Web-based learning cannot be fully integrated due to logistic obstacles". He conceptualises blended learning as "a mixture of web-based plus traditional modes of material presentation and evaluation". Latif, a teacher educator, argues that the Web should always be available in traditional classrooms because it has become essential in present-day teaching/learning; any teacher needs Internet connection in the classroom to "consult the Web at any time once anything urgent emerges, or when clarification is needed". In the same vein, Sally argues that it is feasible to integrate and blend e-learning in our educational system, especially because our students have already studied a great deal about computer uses in learning in formal education.

Emam suggests using a community of practise (CoP) approach as most appropriate for this language-learning context. For him, this socio-interactive learning approach would help with creating a community of learners who share similar academic backgrounds, interests, objectives, tasks, and orientations to practise language learning through effective, meaningful, and collaborative interactions. This group of learners could be

some EFL student teachers participating in the study, and who are supposed to cooperate, both physically and online, to accomplish specific learning tasks and objectives using the Web as the main medium of learning.

Nova argues that the Web can promote collective learning, and thus enhance learners' skills of cooperation and ability to bear responsibility towards one's own work as well as towards others' work. For her, in the TEFL/ELL context, many free web-based applications, tools, and resources have a great potential for both instructors and students, if used correctly. For instructors, they may help with: (1) avoiding the shortcomings of traditional methodologies; (2) establishing a community of learners where students learn from each other, as well as from instructors; (3) providing feedback to students in an easy and timely manner; and (4) allowing students to take responsibility for their own learning and advance their independent skills.

Integrating Web-based facilities has been a recurrent issue in the interviews. According to Amin, many Web-based facilities, such as e-groups and Wikis, foster cooperative/collaborative learning approaches or methods, and hence, communities of learners can be established, which, as Emam argues, can also promote peer tutoring and accomplish stronger interaction among students. Focussing on the AUCOE context, Sally strongly believes that, as an important starting point, EFL student teachers need to know about these Web-based facilities and master the technical skills needed for dealing with computers and the Internet. Hence, questions should be asked such as: "To what extent do student teachers have ample access to computers and Internet connections?" and "In what ways do they use the Web?" This indicates some preliminary procedures to enable this integration: (1) making sure that student teachers master the minimum requirements of technical skills and computer and/or Internet literacy; (2) identifying to what extent they have access to computers and the Internet; (3) knowing about the ways in which they use computers and the Internet, perhaps to build upon these real practices; and (4) teaching them about using these facilities for language learning. These procedures are consistent with Nova's account on the requirements for any training course that employs Web-based resources for academic purposes in the context of pre-service EFL teacher education: (1) students and instructors must have (or be willing to acquire) basic computer and Internet skills; (2) there should be guiding rules for using such resources; (3) instructors must provide students with clear expectations on how their work will be assessed; and (4) instructors should accommodate the various needs

of students and be aware of the different learning styles.

Further, Sally states how to integrate these facilities within the TESOL/TEFL methodology courses; these courses are divided into two major parts: a theoretical part and a practical one. This allows for providing student teachers with both the knowledge and skills for improving their literacy and professional practices. She suggests that under the umbrella of blended learning, part of the course could be handled in the traditional class, and the other part could be web-based.

Four participants (Sally, Helen, Amin, and Gab) stress that in order for Web integration to be effective and complete, due attention should be directed towards providing organised guidance to EFL student teachers while using the Web, which is too big and overwhelming by nature. Hence, student teachers should work according to a schedule. Meanwhile, as Sally argues, they should be allowed some freedom to learn constructively at their own pace while choosing the Web-based facilities or tools they prefer to accomplish the desired learning outcomes. Creating this balance between obligations and personal freedom is, for her, a crucial issue for Egyptian teacher education. In the same vein, Gab argues that student teachers should not be left alone; systematic guidance and training on using the Web should be provided. Similarly, Helen highlights this need stating that when we "throw them to all this messy, overwhelming Web without possessing the minimum skills necessary for selecting and adapting the Web-based content to suit their personal needs and objectives, they are likely to be misled", and therefore, training becomes necessary.

4.2.2.4 Educational benefits and implications for TEFL

Participants stated many educational benefits and implications of the Web within language learning/teaching as far as Egyptian pre-service EFL teacher education in general and AUCOE programme in particular, are concerned. There was a consensus that the Web is educationally useful, beneficial, and effective for the educational process in general, and for TEFL/ELT in particular. These can be summarised in the following points:

a) Enabling various learning modes and meeting varying needs

The Web provides and enables a variety of learning modes and services. The ubiquitous nature of the Internet, as some participants contend, makes it able to support many

forms, objectives, approaches, and modes of learning. Besides, the Web is a good tool that can meet a variety of learning needs by allowing for both synchronous and asynchronous modes. For example, the Web, as two participants state, might be the best fit for self-paced learning, and thus enable one to learn according to his/her own personal capacities and employ the facilities that s/he prefers.

b) Fostering communication and ideas sharing

Many participants (e.g., Sabo, Emam, Sally, and Nova) share the belief that the wide range of communication tools and facilities the Web enables allow learners to get the opinions of experts regarding certain language learning issues and concepts. For example, Salama states that the Web enables something unique: "Creating active networks among university teachers and many specialists, not only in Egypt, but also all over the whole world". Thus, according to Nova, it helps with "establishing a community of learners where students learn from each other as well as from teachers". According to Sabo, student teachers online can easily "exchange and share ideas and receive feedback when necessary". Similarly, Helen contends that because the Web is a good, flexible means of communication, it acts as an ideal medium for sharing ideas from different teaching/learning contexts. This, according to Hana, helps with improving language competency and fostering professional development. Through tools like forums and Blogs, student teachers can share with others teaching activities and ideas, and talk about their own projects and learning/teaching experiences.

c) Reinforcing professional development and lifelong learning

Some participants regard the Web as an indispensable tool for professional development and lifelong learning, especially in this age in which opportunities for learning are not restricted to formal education. For example, a Web-based facility like Google Books, as Latif suggests, "provides student teachers with ample opportunities for professional development", enabling them to "enhance their pedagogical knowledge by accessing the most recent books in the field". Although the full texts of these books are not always available, the small parts reviewed can help with understanding the general ideas, terminology, and jargons. In the same vein, Gab contends that the Web has become "essential and important for all teachers, whether pre-service or in-service, to develop and improve an array of language and professional skills: teaching skills, learning skills, communication skills, and basic language skills". Hence, the Web becomes a learning resource and a medium for sharing ideas and experiences, and hence, a means for

professional development and lifelong learning.

d) Increasing motivation and removing psychological barriers to learning

Three participants (Emy, Sherry, and Sally) raise the issue of how the Web can resolve some psychological factors and barriers to learning, and motivate students to learn. According to Emy, students feel encouraged when the Web enables them to communicate, "not only with friends and colleagues, but also with superior adults of more advanced experience and higher status like professors and specialists". It has become possible for anyone to "contribute to any discussion and publish their ideas online". During her time as a student, Emy's use of the Web gave her much support and motivation since the "whole wealth of information worldwide" was available for her through one click; she felt that whatever the question was, "searching the Web (was) the answer". This helped her to understand the world around and "form positive assumptions in an intellectual journey to accomplish some learning objectives". Thus, the Web provided her with much confidence and motivation enabling her to learn independently and move in the direction she wanted.

Sally and Sherry (teacher educators) agree that some shy students, who feel anxious, embarrassed, and/or frustrated in public discussions and face-to-face interactions, may feel more relaxed and comfortable when they study and communicate online. According to Sally, those students "feel better about themselves and more confident when they work independently in a relaxing environment". They become more able to ask questions and express themselves freely and confidently. Besides, some students prefer to communicate in writing rather than orally, and therefore, using the Web is a good option for them.

e) Providing chances for real language practice

According to Bossy, ELL represents a challenge, especially in the non-English speaking countries where exposure to English is restricted to schools and language classes. One of the most valuable, practical, and time saving suggestions is to direct students to use the Web for freer exposure to language. Rima thinks that because English is a language that is continuously updating itself, using the Web has become essential. Further, through online contact with each other and with their tutors, as Sally argues, student teachers can feel comfortable with using the language.

For Hana, Emy, and Helen, practising language is necessary to keep it surviving, especially for anyone whose future career will rely heavily on a good mastery of English. For Emy, the Web allowed her a chance to practise writing, speaking, and listening. Helen argues that because language is practice, the mere theoretical learning of it, including the memorisation of vocabulary and grammatical rules, does not guarantee the creation of lifelong learners and good English teachers. There should be real-life situations that allow for language practice. The Web is an ideal means or tool that provides these practical situations by exposing student teachers to Standard English.

Rima argues that the Web is an ideal context for fostering communication with native speakers of English. This is an ideal use as far as language practice is concerned: "For the first time, we now have a free tool that enables such an effective communication that is vital in language learning contexts".

f) Developing language competences by addressing the basic language skills

Many participants emphasise a strong relationship existing between the Web and the basic language skills. They stress the possibility that such skills can be developed and improved by the Web and the communication tools it enables. In this regard, two teacher educators (Latif and Amin), who had been using the Web for a long time in their teaching, relate how they always used the Web for developing their students' main language skills, especially speaking, writing, and communication. According to Latif, there are many ways through which both students and teachers can use and employ the Web for developing their language competence. For example, they can use online dictionaries, such as Onelook (available at: <http://www.onelook.com/>) and Encarta. Chatting, as an important communication tool, can also increase their fluency, both oral and written. Through the Web, Emy could, as a student teacher, develop her writing skills, pronunciation skills, in addition to her understanding of the cultural elements that compose the English literature. According to her, this "could never be attained in traditional classroom situations or through lectures and mere book reading".

Sherry stresses the importance of using online videos and lectures for developing language competency. Gab also makes clear this influence of the Web on student teachers' language competence:

A student who surfs the Web always sees something, listens to something, reads

something, and writes something. Accumulatively, this interaction with the Web constructs a competency that makes this student different from another who has not seen, heard, or read anything online. Unfortunately, the latter may still experience the same linguistic difficulties that s/he got with him/her from preparatory and secondary schools.

The same idea is emphasised by Mark who describes how his language improved by using the Web. He asserts how his language, compared with other colleagues, "could be worse if he did not use the Web". He says that his colleagues who do not use the Internet are "still suffering; their language level is weaker and worse than those who are using it".

As far as composition and essay writing are concerned, many participants regard the Web as extremely important. Hana thinks that the Web is very important here for helping students to write about general and current issues, such as swine flu, as well as some cultural aspects not popular in Egypt. Amin contends that the Web, for him and based on an empirical study he conducted, proved effective in developing and improving EFL student teachers' essay writing skills. When students communicate meaningfully and cooperatively with their peers through e-mail and other synchronous/asynchronous tools, their writing skills are fostered. Besides, this online, collaborative, and friendly learning environment may drive them to "enjoy writing and produce the best possible product". Salama thinks that some facilities like Blogs allow students to develop their writing skills. Using the 'comment' and 'post a reply' features, learners can add to each other and write a coherent piece.

Sam has an interesting view regarding the relationship between the Web and language skills; he contends that because using the Web requires a certain mastery level of the basic language and communication skills, the language competency of Internet users might be naturally fostered and improved while they are using the Web. In other words, sometimes it is hard to understand and state which one is useful for the other: the Web or language. For example, "an online writer cannot get his message across unless s/he is able to express himself/herself well; an online reader cannot read quickly and efficiently without mastering the basic reading skills". This indicates a complicated relationship between language and the Web that is compatible with Warshauer's (2000) network-based language teaching (NBLT) approach, which addresses this mutual, interactive relationship.

g) Acting as a rich resource and an online library for language learning and topic clarification

Most participants focus on the essential role of the Web as a comprehensive online language learning resource and a rich library. Compared with any traditional information resources, the Internet, as Latif notes, "enables quick access to an unlimited number of language and language learning resources". Therefore, "the ideal language teacher is this one who should consider using the Web as a main resource for getting and locating language resources and materials". For him, the online journals provided by the Web and the books provided by Google can be very useful for student teachers. The tools that student teachers employ for surfing the Web to get needed information, as Sally contends, "can help them to enhance their knowledge and experience". Further, Emy argues that it is only through the Web that student teachers can "consult hundreds of online dictionaries and encyclopaedias simultaneously". In addition to the vast array of these dictionaries and encyclopaedias available online, searching them electronically is much easier and more flexible than searching paper ones. These online facilities provide many options like simultaneously looking up a word in more than one dictionary.

Sabo and Latif highlighted the basic role the Web plays in clarifying topics. In this regard, Hana relates how online facilities like Google Books can support, deepen, and enrich students' understanding of new topics. Sabo, in particular, stresses the idea that teacher educators should not give their students all the information they need; student teachers at this stage should be mature enough to search selectively for data themselves. This independent, self-paced process of getting further information intensifies their background knowledge of the topics.

Mark relates a real experience on how the Web had an effective role in facilitating language comprehension for him and for other colleagues in a poetry class: There was a difficult section on 'metaphysical poetry' that was not clear in the book. They resorted to the Web (especially Wikipedia) for simpler accounts on it, and hence, they managed to understand it. Mark also gives an example of how he and his classmates managed to resolve a problem related to their TESOL/TEFL methodology course: The tutor was lecturing in a difficult language, and therefore, they resorted to the Web for "getting resources written in simpler English". In this regard, Hana stresses that it is important for student teachers to read online critical analyses of the poems, plays, and novels they

study, as this would enrich their knowledge.

h) Providing a corpus for language learners

Corpus here refers to the online authentic texts. Two participants (Latif and Amin) report verifying their language by using the Web, especially Google, as a corpus. Latif relates using Google to make sure of correct use of language, suggesting that EFL student teachers should be guided into using this. This facility can be used, for example, to know whether the sequence 'significant negative correlations' is correct. For Amin, Wikipedia is a rich source from which students and educators can "get passages for translation and build their schemata to get familiarised with new topics".

4.2.2.5 Difficulties, concerns and challenges

Generally, participants indicate that, to some extent, it is feasible at both theoretical and practical levels to integrate Web-based facilities into the Egyptian pre-service EFL teacher education programmes; the process becomes possible once some difficulties and challenges are considered. Based on the participants' accounts, the main difficulties and challenges can be represented in the following.

First, the administrative challenges, bureaucracy, and resistance to change: In all Egyptian governmental institutions, change is carried out very slowly. In the educational institutions, the administrative hierarchy is a strict system directed by a specific agenda formulated at the highest level. This does not allow for much flexibility or creativity to take place at the concrete level of teaching/learning. Although computer labs exist at AUCOE, the rules organising the process of using apparatuses are very strict (e.g., preserving machines in their original places for fear of being lost or stolen). This stands as an obstacle for an effective educational use. Besides, many staff members, especially old generations, resist any change that requires them to update themselves by, for example, learning how to use new technologies. Similarly, many students prefer the traditional learning conditions they got used to. This resistance from many students is accompanied by feelings of de-motivation and laziness, as well as passive attitudes towards learning in general, teaching as a profession, and the Egyptian educational system itself.

Second, problems of equipment and technical support: These are represented in lack of adequate number of computer sets and hardware. Some participants at Upper Egyptian

universities raised the issue of lack of equipment and technical support. Gab, for example, is not happy with the number of computers available in his college lab and the required maintenance; from the 30 computers available in the lab, only 10 are working. Similarly, Emam notices an imbalance in AUCOE labs between the number of student teachers and the number of computers available.

Third, lack of training in basic computer and Internet skills for both student teachers and their educators: This constitutes a challenge that requires improving the current outdated introductory computer courses. Latif notices that most student teachers do not possess the basic skills required for using computers and the Internet. According to student teachers, any technical training that the college provides on using computers is too theoretical and general to involve practicality of using the Web for specific academic purposes, especially as far as ELL is concerned. Unfortunately, as stated by Sam, colleges of education still do not include IT as an essential component of the official curriculum.

Fourth, the negative attitudes towards the Internet and new technologies in general: According to Emam, attitudes towards using the Web is a very important factor that determines feasibility and applicability. When positive, as Emy and Gab note, such attitudes could help with overcoming any difficulties, but when negative, they might significantly hinder the integration of these facilities. Gab notices that some students show high resistance to new technologies highlighting a well-known fact about Egyptian students in general; they want things to be obligatory rather than optional. Therefore, new technologies should be imposed upon them because they will be part of their learning/teaching in the future, whether they liked it or not. He relates a personal experience that reinforces his idea; sometimes he used to ask his students to learn something, even if they were not happy with it, and then at the end of the year, they gave positive feedback such as: "Yes, we've learned a lot", and "We didn't expect that the Internet is so great like this".

Fifth, the dominance of classical educational ideologies, traditional teaching/learning methods, and evaluation procedures: According to Amin, it is inconsistent to use the Web in education while teaching is delivered according to a "transmission approach" and the evaluation procedures are still carried out in traditional, paper-based formats. The educational system in Egypt suffers from a variety of loopholes that slows down

the implementation of any innovative learning approaches and technologies. Some teacher educators, as Gab and Hana notice, do not act as good models to their students by giving realistic examples on how to employ and use new technologies while teaching.

Sixth, problems of access, costs, and connection speed: For financial reasons, a lot of student teachers do not have computers or Internet connections at home. This, according to Latif, is an obstacle because students' basic technical skills cannot be developed without regular access to computers. For bureaucratic reasons, colleges of education do not provide frequent access in the computer labs except at specific times and under strict guidance. This situation, according to Gab, drives many students to resort to Internet cafes. Unfortunately, most female students, especially in Upper Egypt, cannot go to such places for cultural and social reasons.

Seventh, the need to update the TEFL programme itself: According to Robby and Sally, there is a pressing need to conduct some drastic changes to the AUCOE TEFL programme to address using the Web and other innovations. As a preliminary procedure, EFL teacher educators need to reconceptualise their expectations of student teachers in this age and reconsider the means through which language learning is improved.

Eighth, the increasing number of students enrolled in the pre-service EFL teacher education programme: This makes classrooms overcrowded leading to subsequent problems of using teaching/learning aids and facilities in general. This, as many teacher educators imply, neither allows for giving each student the due care and focus, nor enables an adequate language-learning environment.

Ninth, cultural aspects and concerns while using the Web: Gab raises some sensitive cultural issues and concerns. In Egypt, using the Web, which entails being open to the whole world, involves many issues. For example, while online, male students feel freer and more comfortable than female students do. In addition, students need to learn netiquette¹. Hana also stresses that students should be aware of copyright restrictions

¹ 'Netiquette' stands for 'net etiquette' which refers to the moral rules that should govern human behaviour online, and which people should abide by during online interaction.

and avoid plagiarism since many Egyptian students can easily plagiarise unconsciously.

Tenth, some regional problems: These include poverty, lack of time, unavailability of Internet access, and transportation difficulties. Such problems do not exist in all places and Egyptian universities, but when they exist, they take much of students' time and energy interfering with their focus on improving their learning.

Eleventh, lack of coordination among staff members: Unfortunately, not all teaching staff members encourage student teachers to use the Web for academic purposes. Gab suggests that all members should coordinate together in this regard. Coordination might turn using the Web into a natural and indispensable part of students' study.

Twelfth, the great overloads and teaching obligations on EFL teacher educators: Currently, EFL teacher educators are increasingly teaching for longer hours and their timetables are always full of obligations. This, according to Salama, makes them unable to seriously consider such Web-based facilities while delivering their courses.

For AUCOE, Sally contends that in spite of the existence of some few difficulties, it is quite feasible to integrate those Web-based facilities into the AUCOE programme if teacher educators themselves are fully aware of the rationale behind using those facilities in preparing student teachers for their future careers. The current circumstances at AUCOE may encourage this integration to take place. For example, most lecturing rooms are equipped with the devices of Data Show and computer sets that can help to make this feasible. Moreover, many educators have started to ask student teachers to do tasks based on the Web.

4.3 Conclusion

This chapter presented the preliminary empirical part of the study that involved data collection and analysis, and presentation of results. This involved answering the first two research questions (see Chapter 1). To answer the first question, which involved identifying the Web-based new literacies needed, literature review along with a documentary analysis process was qualitatively conducted. This qualitative process was followed by a quantitative process as a confirmatory procedure to re-arrange the generated list of Web-based new literacies based on the real Egyptian context. This was

done by calculating the means of all the items in the list based on all participants' responses on an online questionnaire that was administered to 50 participants.

To answer the second question that aimed at indentifying the useful Web-based facilities, and why and how they might be useful to Egyptian EFL student teachers based on participants' experiences and backgrounds, a semi-structured interview was conducted with 19 participants who were interested in both TESOL/TEFL and the Web. Participants' accounts were qualitatively analysed with the help of NVivo 8 using a thematic analysis approach.

In addition, a screening questionnaire was designed and employed to select from the whole group of senior EFL student teachers at AUCOE some participants for the prototyping phase. This selection was based on certain criteria that the questionnaire involved (see Appendix H). The questionnaire was administered face-to-face to the target student teachers by an Egyptian colleague.

Both quantitative and qualitative data obtained in this phase will be used as a main resource for the next prototyping phase that will involve suggested designs to be experimented in the real context of AUCOE.

Phase II: The Prototyping Phase

CHAPTER FIVE: THE FIRST ITERATION

5.1 Introduction

This chapter starts the prototyping phase by reporting on the first iteration that was conducted online. Based on the empirical results obtained from the preliminary phase triangulated with literature review, a preliminary design framework was proposed to guide this iteration. Within this prototyping process, the aim of this iteration is to investigate through online interventional tasks the possibility of expanding EFL student teachers' language-related literacy practices while working online as a community. The interventional tasks were intended to gradually expose participants to some Web-based new literacies not familiar within their education programme and which were identified as useful to them in their context (see Chapter 4).

Thus, a Community of Practice (CoP) was used as both a learning approach (Wenger 1998) and a Web-mediated learning environment, acting as a framework for guiding and organising the learning activities. The CoP consisted of those senior EFL student teachers at AUCOE who, based on their answers on the screening questionnaire (see Appendix H), were identified as possessing the basic computer and Internet skills required for my interventional purposes. From the 40 students screened out of the entire group of senior (4th-year) EFL student teachers through purposive sampling, 36 expressed their willingness to participate.

The idea of establishing a CoP from those interested learners was mainly derived from interview data results as some interviewees recommended CoP as a proper interventional design (see Chapter 4). Moreover, it was fostered by some successful online correspondence with student teachers during a short piloting period.

Through this online intervention, some interventional tasks were administered online through e-mail communication on a daily basis for a two-month period (see Appendix J). In response to the tasks, participants contributed through e-mails, Blog posts, and feedback reports. These contributions were qualitatively analysed to inform the process of evaluating the intervention by establishing some conclusions in the form of lessons learned to be cycled back into the next iteration. This should help with establishing a more comprehensive framework to guide the next iteration.

5.2 Preliminary Design Framework

5.2.1 What is a theoretical framework for design (design framework)?

The term 'theoretical framework', as Anfara and Mertz (2006) note, has been so problematic. Theory can be perceived generally as: "an analytical and interpretive framework" (Mills, 1993: p103); from an empirical standpoint, as "a set of interrelated constructs, definitions, and propositions that presents a systematic view of phenomena" (Kerlinger, 1986: p9); from an individualised perspective, as a unique way of perceiving reality that represents someone's profound insight (Silver, 1983); or, from a functional perspective, as a model or map that simplifies the world aiming at clarifying and/or explaining some aspect of how it works. Consequently, a theoretical framework is a means or lenses through which a researcher can see and understand certain aspects of the phenomenon while concealing other aspects (Anfara & Mertz, 2006).

A 'theoretical framework for design' or 'design framework' refers to any framework whose main purpose is to inform the design process and base practical decisions. Thus, Edelson (2002) defines a 'design framework' as "a collection of coherent design guidelines for a particular class of design challenge". Being prescriptive in nature, it describes the characteristics that a design artefact must have to achieve a particular set of goals in a particular context.

For my specific purposes, I define 'design framework' as:

A coherent structure or model organised around one theory or more, and which draws on many resources with the aim of simplifying, organising, and/or understanding the target social reality (e.g., learning context) to eventually produce some principles or guidelines for practice that might resolve existing problems, and hence, improve reality.

In DBR terms, a design framework should reflect both the flexibility of the design process and the self-imposed constraints of systematic research, and employ the emerging technologies and new innovations for the service of the local context (Kelly et al, 2008). In other words, it should represent an adjustment of the prominent learning theories or approaches along with the affordances of new technologies, to a particular context.

Further, my design framework at this stage acts as a starting point, not as a final, prescriptive solution. It is intended to start a prototyping process that addresses a contextual learning problem to which, in Plomp's (2009) terms, there are no ready-made solutions that can be easily adopted without experimentation.

5.2.2 Rationale for using the Web in language learning

Based on interview results (see Chapter 4), the rationale the participants provided for using the Web in education and ELL can be summarised as follows:

- 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 English on the Web which should be exploited to the learners' advantage;
- 4) The capability of the Web to involve many teaching approaches (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 provides that help students with developing their basic language skills;
- 6) The ability of the Web to resolve students' psychological barriers to learning.

These points are entirely 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., reading, writing, and communication) can be fostered by a wide range of Web-based tools such as Wikis and Blogs (Erben et al, 2009; Smith & Baber 2005; Warschauer et al, 2000). Moreover, the Web provides a strong intrinsic motivation for ELL (Muehleisen, 1997), and helps language learners with developing basic literacy skills (e.g., the ability to "read, write, communicate and research online") (Warschauer et al, 2000: p7), which have become essential educational practices and new literacies in the 21st century (Henry, 2006: p625). Further, the Web may increase the personal power of teachers and students; it enables them to become autonomous lifelong learners (Warschauer et al, 2000) providing them with a large reference library that presents innovative ideas in TEFL (Teeler & Gray, 2000). In addition, the Web can foster communication and thinking skills for English learners (Singhal, 1997) who might feel more relaxed because they are less monitored and their main focus becomes on getting

their message across. Finally, the Web provides many options, facilities, and possibilities that can open more dialogic spaces necessary for communication and language learning (Wegerif, 2009).

As some interviewees reported, the Web provides opportunities for English teachers all over the world to share ideas and useful practices. Son (2008) describes this as a network-based teaching environment where language teachers can create meaningful tasks. Based on a socio-cultural perspective to language learning, Warschauer's (2000) ethnographic study in Hawaii reported that students did not experience new technologies represented in 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.

5.2.3 Learning theory

Based on empirical data (see Chapter 4), two main sources should be exploited: a list of Web-based new literacies on the one hand, and the Web-based facilities that enable student teachers to internalise, learn, and practise these new literacies on the other. Keeping these two main sources in mind, there should be a learning theory drawn from both literature and empirical data to guide the design framework. As far as new technologies are concerned, a learning theory is indispensable since the successful uses of technology start with a pedagogical view that is supported by the technological tools available, and not the other way around (Wubbels, 2007).

According to interview results (see Chapter 4), a teacher educator regarded CoP as an ideal format for ELL that fosters dialogue and communication allowing for language practice on a wider scale. This social learning context, especially when mediated by the Web, provides language learners with access to resources that enhance their participation, engages them in meaningful practices, and opens their horizons by creating spaces for language learning, communication, and practice (Wenger, 1998). My CoP will be Web-mediated in the sense that participants should use some Web-based facilities and forms of online interactions, along with some physical interactions, for authentic ELL purposes. Through gradual exposure and interaction, participants could internalise many Web-based new literacies.

Drawing on Handley et al (2006) and Wenger (1998), I assume that CoP at this stage can be an appropriate context for language learning within a teacher education programme, the context in which CoP was originally employed.

Therefore, my framework draws on a CoP approach to learning (Lave & Wenger, 1991; Wenger, 1998) as a context where participants can be exposed to new literacies on an ad-hoc basis. CoP was theoretically based on principles from situated learning and socio-cultural theory that focussed on the role of the context and situation in learning and knowledge construction. Some interviewees with an educational psychology background suggested that using CoP combined with socio-cultural learning principles, especially Vygotsky's ZPD concept, could be effective in expanding EFL student teachers' literacy practices within a Web-mediated language learning context.

CoP for me is both a learning approach and a social learning environment. Lave and Wenger (1991) devised it in their model of situated learning which proposes that learning involves a process of engagement in a CoP. Along many other socio-cultural and situated learning approaches, CoP marks a shift of learning, in Sfard's (1998) terms, from an *acquisition* metaphor that involves students in cognitive activities mainly to facilitate the acquisition of some imposed symbolic mental representations, towards a *participation* metaphor in which knowledge is considered fundamentally situated in practice (see also Barab & Duffy, 2000).

Practice here is a fundamental process in which learning occurs through immersion in purposive and practical activities. Brown et al (1989) and Barab and Duffy (2000) propose that learning is always situated and progressively developed through activity, and hence, it is only through use that concepts are fully understood. Knowledge itself differs in nature, taking a situated stance which Barab and Duffy (2000) describe as neither 'objectively defined' nor 'subjectively created', but rather 'reciprocally constructed' within the individual-environment interaction. Such arguments lead to the conclusion that situated, contextualised practice always leads to deep understanding and meaningful learning.

Lave and Wenger (1991: p98) coined CoP to indicate "a set of relations among persons, activity and world, over time and in relation with other tangential and overlapping communities of practice". Later on, it was defined as a group of people who share a

common concern, a set of problems, or interest in a topic and who come together to fulfil both individual and group goals (Wenger et al, 2002). Considering Web-based communication and other new technologies, Wenger (1998) included any group of people not confined by geographical boundaries who share similar interests, goals, and needs, and who must contribute to the community by participation, whether physically or online. This participation should be active in order to lead to meaningful learning, and should reflect a sense of belonging to a community. Handley et al (2006) argue that it is through participation in a community that individuals develop their practices and identities. Hence, in addition to being a direct application of situated learning theory, CoP can be also seen as an effective format for collaborative learning.

5.2.4 Design principles

Now that a CoP is of an emerging and ad-hoc nature, it seems difficult, as Wenger (1998) and Wenger et al (2002) imply, to pre-design or pre-plan it in the structural and systematic sense of the word. Because it is not a designable unit, one can articulate patterns, define procedures, and design policies for a CoP to live by, but cannot design the practices that will emerge. In other words, one can produce the affordances for the negotiation of meaning, but not the meaning itself. In this sense, planning a community tends to be more a matter of finding triggers for catalysing evolution than creating a full design (Wenger et al, 2002; Wubbels, 2007). More specifically, my main role as a leader lies in generating tasks that stimulate participants' contributions and interactions within the CoP based on the types of tasks and interactions going on.

Therefore, for guiding and leading the CoP, I will draw on the overall philosophy of CoP that Wenger et al (2002) summarise as follows: The goal in the planning stage should be to promote community development around three key elements: domain, community, and practice, by defining the community's focus, identifying and building relationships between members, and identifying topics exciting for them.

In addition, I will draw on the seven design principles suggested by Wenger et al (2002) to flexibly guide the establishment of a CoP in a general sense, rather than acting as strict, fixed rules or recipes that detail exact steps to be followed to the letter:

1. *Design for evolution*: not to impose a structure, but allow for development.

2. *Open a dialogue between inside and outside perspectives*: make members aware of the possibilities their community can achieve based on their activities and practices.
3. *Invite different levels of participation*: allow all members to participate based on their varied levels of commitment, motivation, and interest.
4. *Develop both public and private community spaces*: focus should not be exclusively on public events, but also on one-on-one networking where individuals can develop specific technical skills.
5. *Focus on value*: rather than attempting to determine their expected value in advance, communities need to create events, activities, and relationships that help their potential value to emerge and enable them to discover new ways to harvest it.
6. *Combine familiarity and excitement*: members should feel comfortable in the community, and, at the same time, new events that stimulate members to think and communicate should emerge to keep new ideas and new people cycling into the community.
7. *Create a rhythm for the community*: a stable tone is useful to maintain organisation and regularity.

Along with the general design principles discussed above, and drawing on Linn et al's (2004) and van den Akker's (1999) definition of design principles in the context of DBR, I generated my local design principles to guide using this CoP:

- 1) Participants should be gradually exposed to some Web-based new literacies while they are working as a community to fulfil direct learning needs or find solutions to emergent problems using the Web as the main learning resource;
- 2) Participants' learning should be contextualised in real practices that indicate a reciprocal, interactive relationship between the learner and the environment;
- 3) Participants should be immersed in new language-related literacy practices based on topics from their studied courses to feel with direct utility, value, and relevance;

- 4) Participants should work as one community to support each other while doing some interventional tasks whose complexity increases with time on a gradual basis;
- 5) All forms of learning and interactions should be Web-mediated to enable participants to contextually discover and realise the potentialities of the Web;
- 6) While working within a CoP, participants should be allowed to learn in both public and private spaces.

5.3 Objectives

The design principles discussed above should serve the objectives behind establishing and developing a CoP. Consistent with the main research objective of investigating the possibility of expanding EFL student teachers' language-related literacy practices, the main objective of the first iteration is to investigate this possibility through a CoP design. Further, because expanding learners' literacy practices is the target, 'practice' as a key element of three elements within a CoP will be given considerable focus.

Based on the two lists of Web-based new literacies and facilities resulting from empirical data in the preliminary phase (see Chapter 4), some minor objectives were identified as important to accomplish during this piloting stage. Thus, through working within a Web-mediated CoP, participants are expected to:

- 1) Use the Web to meet direct learning needs related to their studied English courses (e.g., locating online resources to answer a question);
- 2) Identify different ways of using and employing online English language resources (e.g., dictionaries, encyclopaedias, and journals) for language learning purposes;
- 3) Use English online for some real communicative and functional purposes both with the wider global community and with their colleagues (e.g., commenting on others' writing, giving feedback, and asking for help);

- 4) Practise different aspects of online communication and language learning through working collaboratively within an e-mail group, a class Blog, and a Wiki;
- 5) Share knowledge, experience, and material with each other using some Web-based facilities;
- 6) Practise new ways of reading and writing online while using some Web-based facilities (e.g., Blogs and Wikis) to fulfil a learning need.

5.4 Interventional Tasks

The intervention here is less of a well-organised programme, but more of a series of interventional tasks administered online on an ad-hoc basis. To accomplish the objectives stated above, these tasks were administered through e-mail communication (see Appendix J). The tasks were used on an ad-hoc basis as appropriate to the emerging nature of CoP. They were mainly used to stimulate and organise the learning activities within the community, and therefore, they were improvised dialogically in response to the learning context, participants' current needs or problems, and the ideas participants brought into the online space of the community.

In what follows, I will present in a chronological order a list of those interventional tasks abstracted from the original e-mail correspondences. On an ad-hoc basis, the tasks were administered within a two-month period running from 15-11-2009 till 15-01-2010:

1. Reading an article on CoP to answer questions on what a CoP is, and how it can be useful for ELL;
2. Reflecting on the principles and rules that should govern our CoP (e.g., democracy, transparency, honesty, and clarity of purpose), and considering them in all future correspondence;

3. Reflecting on the English courses they were studying to find ways in which the Web could help them with their study;
4. Joining my established Wiki and Blog through following directions that would be given on one-on-one basis through online chat;
5. Visiting my Wiki to review a page on *Animal Farm*, a novel they were studying, to edit the content of the page in which many mistakes were intentionally included, and then answering some simple questions;
6. Searching *Yahoo! Answers* for questions on *A Passage to India*, another novel they were studying, and then reporting their experience on the Wiki by answering few simple questions;
7. Going through *Wikipedia* accounts on different topics and reading Google definitions to choose a topic and go through model PowerPoint presentations online (e.g., slide-sharing websites and Google advanced search) to see how previous presentations were made on the topic they had chosen, and then making their own PowerPoint presentations;
8. Using the Help menu (especially on *Yahoo! Mail* and *Google*) to resolve some difficulties experienced recently;
9. Reviewing some online English dictionaries that should help them to easily and quickly locate meanings, then looking up some new words, and finally reporting on the extent to which the process was useful;
10. Checking the sources of a written piece by Googling exact phrases from it to understand plagiarism and how to avoid it;
11. Finding some definitions for certain concepts by using the 'Google definition' feature that enables one to locate all Web definitions for any term;
12. Spending 10-30 minutes everyday to contribute by posting anything useful and relevant to my Blog or commenting on others' posts;

13. Reading online accounts on 'Netiquette' to understand the rules governing online behaviour, and then posting something on the Blog stating their personal reflections on Netiquette based on real experiences online;
14. Watching a YouTube movie on *Animal Farm* to write down their own reflections and/or impressions on the Blog or the group website;
15. Sharing these accounts with their colleagues by posting them to the group Blog or Wiki;
16. For the group facilitator only: Posting an e-mail to the whole group explaining in detail how to use Blogs;
17. Reading a character sketch written by one of their colleagues, and then commenting on it, adding to it, and/or editing it;
18. Checking Google definitions and Wikipedia to see what a 'newbie' means and writing their reflections on the Blog;
19. Using the Web to check accuracy and verify language by checking any English phrases when in doubt about correct form, and then, reporting this experience to the whole group.
20. Applying a model of how to answer a quotation question to answer real questions and post these answers to the class Blog;
21. Evaluating the CoP in terms of advantages/disadvantages, things they have learned, whether they would continue, and how to improve this community.

5.5 Methodology

DBR as the main paradigm employed here can underlie a variety of research methods and procedures depending on the research objectives. As argued in Chapter 2, DBR is more a flexible methodology that is highly dependent on a specific context, than it is an

absolute, independent set of rules to be strictly followed in all design studies, a position emphasised by Sandoval (personal communication, 2009b) who rejects the existence of unified, fit-for-all principles for DBR; he argues that DBR is really "more about a set of commitments to the questions worth asking and the kinds of answers possible to those questions, than it is about a specific set of methodological principles".

This flexibility is noticeable in some early DBR studies utilising design experiments to address specific learning problems and needs (e.g., studies by: Brown & Campione, 1994, 1996; and Joseph, 2000), where the iterations within the same study could vary in terms of duration, participants, format, and procedures depending on the interventional solutions proposed and the subsequent modifications made to fix weaknesses observed in previous attempts. Throughout personal communication, some leading DBR figures (e.g., Collins, 2009; Dede, 2009; Kelly, 2009; Plomp, 2009b) state that it is not necessary that each iteration should be identical to the next, something that takes DBR away from experimental design which uses fixed, pre-determined procedures that focus more on controlling variables within a laboratory setting than on characterising the situation to deeply understand the phenomenon (see also Collins, 1999, and Chapter 2).

Since it is not a comparison study, iterations in the same design study can vary because iterative cycles should respond to failures and lessons learned in prior attempts. The major feature distinguishing a design study thus is the 'refinement' process whose goal is to fix the problems and weaknesses noticed in the previous implementation and provide a better design. This may involve minor changes or major ones.

Hence, at a broad level, the main methodology guiding the first iteration, which Plomp (personal communication, 2009a) conceives as a micro-cycle in the whole research process, is part of the broader DBR methodology (see Chapter 2). Thus, here I employed specific methods determined by the emergent nature of the CoP approach (Wenger, 1998), and which necessitated a mixed-method approach to data collection and analysis; both quantitative and qualitative methods were employed to inform a qualitative design narrative to weave pieces together into a meaningful story of establishing and sustaining a CoP. While qualitative methods were employed to analyse online documents to inform this narrative description of the CoP development, quantitative methods were also employed to provide statistical evidence on that development to reinforce the narrative.

Following Barab et al's (2008) model of design narrative that reports on the establishment and development of a Web-supported CoP, I employ a simplified form of design narrative. Methodologically, design narrative, as Hoadley (2002) argues, is employed by design-based researchers to meet the challenge of replicability by describing research adequately (see Chapter 2).

The main reason behind this choice is the emerging nature of the CoP design where learning events were triggered by some learning tasks e-mailed to participants on a daily basis (see appendix J) to stimulate their interactions and use of some Web-based facilities. Besides, through the rich accounts it provides, this narrative description characterises the learning context by capturing many aspects simultaneously, and thus, providing useful local accounts that might be beneficial to others (Barab et al, 2008; Collins, 1999).

This complete picture of a design narrative should help readers to make sense of DBR as a design that targets the messy naturalistic context, not the artificial laboratory one. Hoadley (2002) argues that this narrative form is required in a DBR study in which the researcher is not only obligated to fully describe the tools s/he may have built, but also relate, as fully as possible, the context in which the tools are being applied, the activities and practices offered to the users, and, most importantly, the evolution of the context over time in response to the tools. These aspects were involved in my CoP where I was stimulating student teachers to work collaboratively while being involved in some new literacy practices in response to some learning tasks contextualised in their learning context.

Using a simplified version of design narrative was necessary for my specific context and purposes. In some long-term DBR studies that utilised this technique (e.g., Barab et al 2008; Hoadley, 2002), design narrative covered many years resulting in detailed descriptive accounts. However, here it was used to report on the CoP evolution within a period that did not exceed two months, and hence it was compatible with Hoadley's (2002) argument that a design narrative can be less complete than other forms communicating compactly and effectively how a design came into being. Narrative for him is a structure for conveying a series of related events (a plot) in which case some details may be omitted, but important agents and events are relayed. Hence, my main

focus was on briefly narrating the most important learning and interaction events and incidents going on within the community to make a case of how this CoP evolved within this specific local context.

5.6 Participants

Participants here are also referred to as 'co-participants' because, based on Collins' (1999) argument, they have a voice in the design process. Participants consisted of 36 out of 40 student teachers identified through a screening questionnaire (see Appendix H). This screening process was extremely necessary as a preliminary procedure for establishing a CoP. Participants here were naturally prepared for working as a community because they had been working in the larger group of senior EFL student teachers that consisted of 215 student teachers for more than 3 years. This long period of extensive communication and learning together, in Sharp's terms (1997), should have developed in them a common sense of purpose and a desire to share study-related knowledge and experience. A critical advantage here was that participants were able to interact both physically and online through some Web-based facilities. At this stage, my interaction with the group was only online because of geographical boundaries. According to Wubbels (2007), this online interaction among student teachers within a pre-service teacher education context to share ideas and work on tasks can fulfil conditions for creating a CoP.

5.7 Procedures

Under this CoP approach, participants were gradually immersed through some interventional tasks (see Appendix J) into new literacy practices. This gradual exposure, which might be regarded as a significant feature distinguishing this CoP design, was needed as a starting point at this stage. Hence, the integration of new technologies and literacies took the form of naturally-sequenced learning events.

Rather than reporting a story of the rise and fall of a CoP as Chua (2006) did, I will report the story of a CoP that should exist and be used in the future, no matter how slow the rhythms of interactions might be. Being Web-mediated, this CoP is expected to continue, even when face-to-face interactions among members cease following their

graduation. From a design perspective, this CoP can be utilised as a background for designing subsequent interventions with the same participants.

Drawing on Wenger et al's (2002) delineation of the stages that a CoP should go through after its emergence as a potential community, I followed three stages in immersing participants into the CoP: Launching a CoP, sustaining the CoP, and pausing the CoP.

5.7.1 Launching a CoP

Based on the screening questionnaire results, 36 student teachers who were identified as sharing similar interests, attitudes, and IT competency levels, agreed to work as a community. They were informed from the very beginning that their selection was based on their responses on the screening questionnaire (see Appendix H).

Drawing on arguments by Lave and Wenger (1991), Wenger (1998), and Wenger et al (2002), a CoP that should act as a starting point within my target context was a potential endeavour for the following reasons:

- a) As part of the larger group of senior EFL student teachers, participants had known each other for a reasonably long time;
- b) Participants were sharing common goals, interests, attitudes, and concern for succeeding and getting high grades since they were studying the same academic courses;
- c) A community was helpful for them as a platform where they could support each other by sharing ideas and resources;
- d) Participants could interact with each other both physically and online, and hence the potential CoP was an extension of their face-to-face interactions in classes;
- e) Participants were sharing similar levels of mastering basic IT skills and each of them had an e-mail account to be used for forming an e-group as a preliminary step.

After deciding on group members, the challenge was to create, in Wenger's (1998) terms, a shared domain to connect them together. This challenge was partially met as participants were sharing the broad domain of ELL. However, this domain needed to be unpacked into narrower and more tangible ingredients so that the group could find

reasons for communicating and networking online. This necessitated my interference with some tasks based on their current needs and emergent academic obligations.

Besides, because most participants did not know me personally, efforts were needed to attract them and convince them to participate voluntarily. Based on interview results (see Chapter 4), the main drive that stimulates Egyptian students to participate is finding tangible benefits that relate to their academic study. As Wenger et al (2002: p71) argue, a "community is driven by the value members get from it". Therefore, as a starting point, I offered to help participants with locating material online relevant to their English courses. During that semester, they were studying three courses they needed support with: Novel, Essay and Reading Comprehension, and Linguistics.

Topics were chosen from the above courses based on my online interactions with them and their educators. As EFL teacher educator, I was also interested in these courses and topics, which I have already studied, and hence, could provide guidance, support, and useful tips. Participants, as indicated in their feedback e-mails and offline chat texts, started to realise the real benefit of sharing useful resources online, and some of them, after seeing concrete benefits, began to take the idea of a CoP more seriously.

Many contacted me asking for advice on the best ways to improve their English, and I drew on this impetus, and which was compatible with my research objectives, to encourage them to participate effectively in the CoP for improving language skills. This incident resulted in many e-mail exchanges through which I developed arguments with them.

It was quite visible that the 'shared domain' governing work within this CoP began to gradually develop from the mere sharing of relevant English resources to improving language skills and literacy practices. Members were sent links clarifying, in simple words, what a CoP is and were asked to do a simple task which required them to say, in their own words, what a CoP is, and how it can be a useful language learning context (see Appendix J). Few participants responded, but their accounts indicated that they started to form insight into the process, as in the following example:

Language is practice. CoP gives the chance to doing so. Moreover, members engage in joint activities and discussions, help each other, and share information. They build relationships that enable them to learn from each other. A CoP thus involves much more than the technical knowledge or skill associated

with undertaking certain tasks.

During that time, I faced some organisational difficulties within the group as new members were joining it after recently accepting my invitation. I had to resolve the time gap between old members and novices, especially because early e-mails explained CoP, its purpose, and members' roles (see Appendix J). Therefore, when newcomers joined the group, all previous e-mails that had been circulated since the CoP was launched were forwarded to them to enable them to understand the culture of the group and its important components (i.e. domain, purpose, value, and rhythm).

Because most communication was centred on me as a leader, with limited interaction (if any) among participants themselves, I started as a preliminary procedure to foster public communication among them; they were asked to join an e-mail group created for them to act as a main platform for the group, and thus facilitate interactions. Students joined the group gradually as it took some time to build trust and convince them to join. No sooner had some new members joined, than they started voluntarily to upload useful presentations, handbooks, and CD's related to ELL. All members were notified about this through e-mail, and consequently, many of them sent joining requests that were approved.

To create netiquette, an e-mail was distributed which explained the rules which all members should abide by. However, many female students were reluctant to participate for cultural reasons; they frankly stated that they were too shy to contact any male colleagues in the same college fearing that their interactions may be misunderstood. To resolve this issue, I declared to the group that e-mail communication among group members should be done on a public space by using the group e-mail address. This way, this communication would be for learning purposes and would not deviate from the main CoP goals and policies. Besides, all e-mails were passed on to me as a moderator, something that allowed me to have control on spam, offensive, and/or irrelevant e-mails.

5.7.2 Sustaining a CoP

Wenger et al (2002) argue that to sustain members' energy for the community, the next stage in the development of a CoP should address the challenge of creating a balance between building relationship and trust between members, and the early need to demonstrate the value of the community. Addressing these challenges involves

nurturing in two spaces: partly in the public space of the community by facilitating interactions, managing the website and online tools, or organising documents; but mostly in the private space when I, as a coordinator, chat with members one-on-one online about their emerging needs and problems guiding them into solutions.

I followed many procedures to maintain this balance and nurture the community needed. For example, finding that online communication among members was still weak, I encouraged them to use the group e-mail address to e-mail anything or reply to all members, thus making these e-mails public. I also asked them to use other facilities to exchange ideas. Many replied asking for private guidance online, and consequently, I assigned specific times that suited all of us. This online guidance was conducted through chat, both voice and written. In this way, I managed to nurture the community in both public and private spaces.

Wenger et al (2002) argue that different intents require different community structures, activities, and tools. Hence, beside the online mailing group, other Web-based tools were established for the purpose of gradually immersing student teachers into new literacy practices, and therefore, a Wiki and a Blog were established. Some participants welcomed the idea of launching a Wiki for EFL student teachers. One of the core members, who acted as the group facilitator, admitted that she was glad to see her dream coming true:

As for the Wiki, it's a great idea. In our previous summer vacation, I thought of making a big forum to our department. I saw this idea before and I wanted to do it, but I couldn't. So, I liked your idea very much. I will do my best to share, I promise.

On the other hand, many participants were reluctant to contribute in these online tools mainly because of technical difficulties, and therefore, I had to arrange synchronous online tutorials through chat to guide and motivate them. I began to motivate those who had already known how to deal with Blogs and Wikis to start posting and writing to share their ideas and reflections. I invited them to do some simple, easy tasks that would not take much time.

For this purpose, I created a new page titled, 'Animal Farm' on the Wiki. Based on my background and readings, I composed two simple paragraphs that explained the main idea of *Animal Farm*, which included inaccurate pieces of information. The task was to

replace any wrong words or phrases with the correct ones based on their study. This was so easy that within two days, all wrong words were replaced, and hence, it was an encouraging starting point. Based on this motivating result, I added to the Wiki another page titled, 'A Passage to India', which included more advanced tasks.

Beside the physical interactions that took place among the group, my online interactions with them were in the form of chat and e-mail communication. I experienced communication difficulties with students while chatting because of slow speed and delayed rhythms. Besides, many of them were not checking their e-mail accounts regularly.

Though interaction and participation rhythms were unstable and unsteady (see Figure 10 below), gradually group dynamics evolved. I was watching interactions carefully, and when something came up, I interfered by providing feedback to the whole group in the form of a teaching tip (see Appendix J). These tips and pieces of advice helped many members, as indicated in their feedback reports, to learn many new and useful things in context.

The CoP was mainly a local community linked to the virtual world where members could meet face-to-face in the college. However, all interactions were mediated by the Web because I was not available for them face-to-face. Thus, participants were encouraged to work in both modes since the online community was a virtual representation and extension of the original physical one. Being unable to see how physical interactions were going on was a limitation within my CoP that I had to address. Therefore, I asked the group facilitator, who had high technical expertise that was highly needed at this stage, to represent me physically. All her reports indicated that physical interactions among group members were very limited. She further suggested that the physical existence of the teacher with group members could be effective in terms of fostering face-to-face communications.

Thus, Web-mediated interactions were the only way through which I could see what was going on and follow the development of the CoP. To trace these interactions, all contributions made by members were filed online to be used later on as the main resource for evaluating the CoP as an intervention.

These online interactions, based on Wegner et al's (2002) discussion of distributed communities, caused many difficulties and challenges. These included: slow rhythm of interactions resulting from gaps between e-mails and responses; difficulty of building trust online; and the continuous need for events and stimulations to keep the community alive. The first two difficulties were uncontrollable online, while the third one could be addressed by:

- a) E-mailing the group on a daily basis to introduce something new, comment on something, praise good contributions, assign new roles, and provide tips and advice useful for students' learning;
- b) Monitoring the e-group, Blog, and Wiki on a daily basis to post something or reply to posts made, and hence encouraging others to participate and convey to contributors the impression that all their viewpoints and reflections were taken seriously;
- c) Arousing students' interests regularly by raising current topics, problems, and/or issues relevant to their academic study and university life;
- d) Being synchronously present with students on a daily basis through online chat to make for my physical absence.

5.7.3 Pausing the CoP

Based on a statistical review (see Figure 10), student teachers' participation went very low towards the end of the two-month period. This could be attributed to the following: (1) many participants reported being unable to catch up with others because they did not have regular access to the Internet; (2) others admitted that they were too busy with their studies to participate; and (3) others, as reported by the group facilitator, were not comfortable with online interaction as they got used to regular face-to-face interactions with tutors.

Although most tasks that members were required to do were quite simple, short, and closely relevant to their academic courses, few participants (i.e. approximately 10 out of the whole 36) were doing them. In spite of the many rounds of e-mails being sent as reminders to solicit participants' feedback and contributions, no further members replied, except for a few who responded by stating that they were too busy, or that they had not checked their e-mails. Taking into account Lave and Wenger's (1991) concept of legitimate peripheral participation, which indicates that most group members would naturally stay passive and silent during early interactions till they move into central

participation, it is unfair to jump to the conclusion that my CoP failed because of these silences. Even those who were reluctant to contribute were still, in a sense, active members because they were watching the interactions going on and making use of the exchanged material as reported by the group facilitator. Therefore, I had to temporarily pause the CoP until participants finish their semester exams and become less busy. Later on, this CoP will be resumed as a basis for the next iteration that will involve the same participants.

5.8 Results

As argued above, Wenger et al (2002) state that a CoP is defined by three main structural elements: domain, community, and practice. When this is applied to my CoP as a criterion for identifying the degree of success or failure, I can say that the ‘domain’ was clearly evident, and the ‘practice’ that revolved around some language-related literacy practices associated with the Web, was reasonable. However, the ‘community’ aspect was not adequately developed as indicated by the rhythms of online interactions among members. Most interactions were centred on me despite any efforts to direct participants to interact with each other.

Only core members were contacting each other, and as indicated by their reports, they realised the effectiveness of these interactions on their learning. For example, the group facilitator (referred to as M...), was very enthusiastic about the project. She enjoyed the tasks and the interactions going on within the community. She commented:

I appreciate your efforts, go ahead!...When you ask me to do a task, you do not waste my time. It's my pleasure to share even with little in your project. I totally agree that these tasks are helping me a lot in my study. The best thing for me is contacting you and performing those useful tasks...Really, I benefit a lot. I'm adding to my knowledge and I'm respecting myself as I feel I'm doing good things for you, my colleagues, and -of course- me.

As a final procedure, some open telephone interviews were conducted with some group members to identify the reasons why participation within the community declined towards the end of the first semester. All interviewees attributed this attrition to two main reasons: time and access to the Internet. They stated that towards the end of the semester, time becomes critical for all EFL student teachers in preparation for their final semester exams. Many of them suggested launching such courses at the beginning of the second semester when they have more free time. The problem of access emerged because most group members did not have Internet at home. Normally, those living in

the university accommodation can easily access the Internet from there. But when exams approach and attendance in courses becomes limited, they prefer to return to their rural villages to study quietly where they have limited or no access to the Internet.

Therefore, I can conclude that the declining rhythms of interactions and contributions within the group were more a matter of contextual factors than an indication of intrinsic failure of the CoP.

In her report, the facilitator of the group shared some useful tips for improving the learning process within our CoP:

I think the first thing that should be done is to help members realise the importance of the group. Then, tasks should be divided...I mean, we should discuss what we want to do, then each one can take a specific task so that all of us can perform a useful project together. Also, members can be attracted to participate in the group by finding useful and nice files or materials on it (that's what I'm trying to help with).

Other students had useful suggestions such as employing direct face-to-face interactions to support and reinforce the online ones by having regular weekly lessons or sessions.

Drawing on Forsyth's (2006) definition, I perceive the group dynamics as the interpersonal processes going on within a group after being launched. These involve all online learning and communication activities, and participation rhythms, including e-mail communication, Blogging, uploading files to the group website, and individual chat. Tracing the development of group dynamics is a crucial issue here since all activities and interactions were viewable only online by me. For triangulation purposes, the group facilitator was asked to regularly send a weekly report detailing physical interactions within the group.

I saw that the qualitative narrative description presented above should be accompanied with some statistics tracing the development of the group dynamics along a two-month period from when the CoP was launched in 15/11/2009 until it was paused in 15/01/2010.

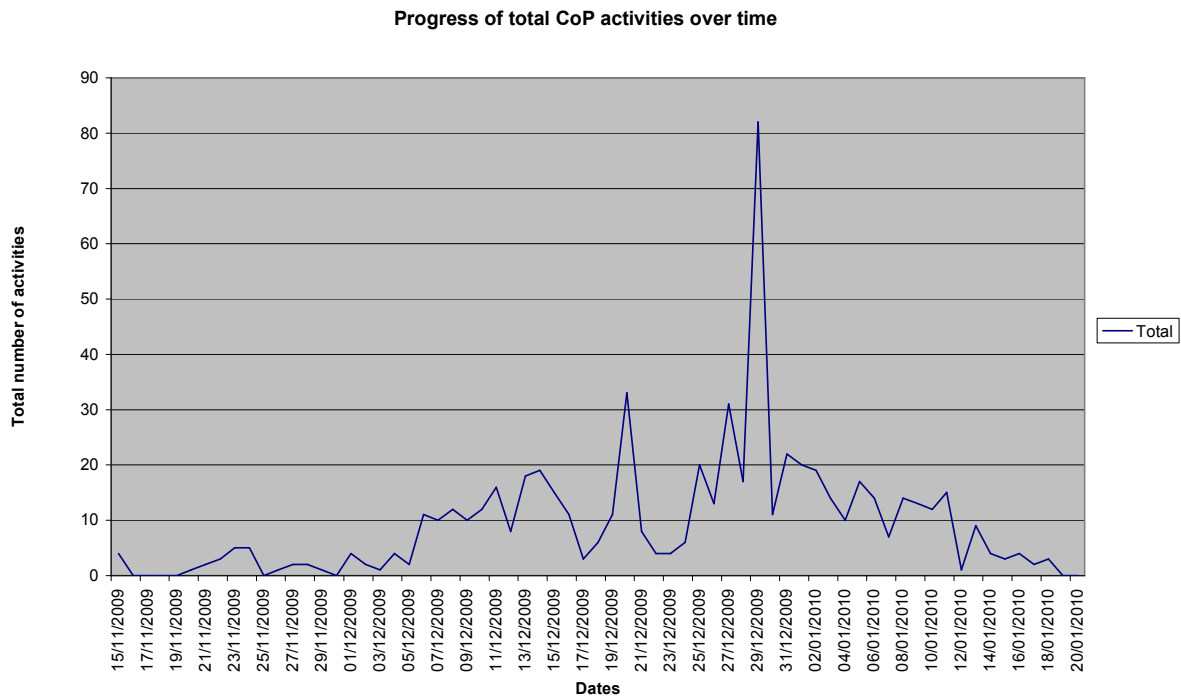


Figure 10: Progress of CoP activities

It is clear from Appendix K as well as Figure 10 above, that group dynamics took an irregular rhythm. Activities were characterised by being high towards the middle of the period. At the beginning of December while many new members were joining the group, members started to exchange material, contribute to the Blog and Wiki, and chat with me on a one-on-one basis to request technical assistance. Core members were initiating all these activities from the beginning until the end, while other members were participating irregularly.

5.9 Discussion and Conclusion

For triangulation purposes, the results of this iteration were obtained through quantitative analysis of students' interactions as illustrated above together with qualitative analysis of many types of documents such as e-mail exchanges, chat scripts, feedback reports, and online contributions made by participants to both the Blog and the Wiki. Based on this, the following conclusions were reached:

The CoP, as a preliminary design or as a first attempt, was partially successful in accomplishing some objectives since there were both strong and weak points that could be addressed by further designs. It was mainly intended for piloting purposes to gain

insight into how things would work in reality, and not as a recipe or prescription at this stage.

On the positive side, participants were gradually involved in new literacy practices related to their studied courses (e.g., using e-groups, Blogs, and Wikis to exchange ideas and express themselves online). A qualitative analysis of participants' feedback reports and open telephone interviews revealed the following positive points:

- 1) All participants could improve their English language by being exposed to new vocabulary and regular tutorials;
- 2) Most participants employed within their academic study the online resources exchanged among all members. Most of them reported that such resources enabled them to understand the novels they were studying, and a participant reported that he relied only on these resources while preparing for some tests;
- 3) Core members reported positive changes in their language skills as a result of their regular contributions;
- 4) Many members reported being able to know some members more closely within the community and develop friendships with them;
- 5) Some participants reported that working within the community opened for them new horizons for knowledge and learning, and enabled them to read more than before and to use new ways for writing online. One of them reported that writing e-mails and blogging improved her typing skills;
- 6) The group facilitator reported that the idea of having a Blog for EFL student teachers at AUCOE was "a dream that came true".
- 7) Core members reported being interested in what they were doing, and happy with the way they were treated as co-participants;
- 8) Some participants found the tips and advice on using the Web in their study very useful;
- 9) Some participants liked the idea of being in touch with each other through the e-group.

However, on the negative side, this partial success was evident in terms of quality not quantity; as indicated by the group dynamic statistics (see Appendix K and Figure 10), the number of members who were actively participating was quite limited compared with the total number (n=36). For example, the total number of files uploaded to the group website reached 94, which was a good number, but only 3 participants uploaded

them. Similarly, only 11 participants were blogging (i.e. they created 32 posts and comments), while only 4 were using the Wiki. Most of these contributions were initiated in response to the interventional tasks e-mailed to participants on a daily basis (see Appendix J). Few contributions were initiated by group members, all of which were made by core members.

Some participants attributed this reluctance to participate to many reasons such as lack of time, need for face-to-face guidance, lack of regular access to the Internet, inability to fully understand the interventional tasks, and cultural reasons (for female participants).

In this regard, many teacher educators and active members stated that many students were still unable to understand the culture of Web-mediated learning. Unfortunately, many female learners feel too embarrassed to express themselves freely on the online public spaces. Besides, some participants who did not have access to the Internet at home were reluctant for financial reasons to go to other places like cyber cafes, where they would be charged to use the Internet, only to do the required tasks.

In terms of CoP design, the ‘community’ element was not adequately established. Based on statistical analysis of all e-mail exchanges and Blog and Wiki contributions, it was noticeable that communication was centred on me as the group leader, while internal communication among members themselves was clearly restricted to the five core members who were sometimes giving feedback on each other’s contributions. Even physical interactions among the group hardly existed, as the facilitator indicated in her report; she indicated that student teachers in the context of this education programme were not trained to work as a team. Besides, my physical absence, as she reported, negatively affected physical interactions among them since they got used to seeing the instructor face-to-face in all their courses.

Some participants suggested ways to improve learning within this community; these can be summarised as follows:

- 1) Working both face-to-face and online (i.e. in a blended mode), because the physical existence of the instructor or leader with learners is extremely important;

- 2) Providing technical preparation and support, especially at the beginning. Though participants were mastering the basic computer and Internet skills, they lacked confidence in using them independently;
- 3) Meeting with each other regularly so that tasks are taken seriously and cooperation/collaboration among group members can be fostered;
- 4) Current events should be used to stimulate discussions in English and encourage participation;
- 5) Amusing and interesting material (e.g., games, quizzes, and tests) should be added to the group website to attract learners' attention and encourage them to participate.

From this iteration, a set of lessons emerged that should inform the next iteration. The first lesson is that when interactions between tutors and students are only online, students are unlikely to take things seriously. As reported by some participants, student teachers were used to traditional face-to-face interaction, and therefore the totally online mode might have been a shock.

Another lesson is that throughout my experience with participants online, I realised the validity of an assumption made by two teacher educators (see Chapter 4): student teachers need to be gradually immersed in the new activities and tasks, which they might reject at the beginning regarding them as a waste of time.

Blended learning that merges both face-to-face and online modes is a good solution. In their final reports prompted by some survey questions (see Appendix L), many group members suggested using face-to-face interactions as a solution for the above-mentioned weaknesses in the CoP design.

A third lesson is that both individual and social aspects of learning should be considered. Communication within the group was mostly conducted on one-on-one basis with me. Participants were excited to be in touch with a person living abroad, and therefore, they felt very happy while contacting me. Though this was important for student teachers' self-development, many of them reported that they needed more effective interactions to take place among group members themselves so that they could benefit from each other.

Another important lesson is that realistic learning needs should be utilised; otherwise, student teachers are unlikely to take things seriously. As stated above, many participants were unwilling to exert any effort unless they found the topic closely relevant to the studied courses. Hence, any future intervention should take into account the studied courses and their realistic needs. These aspects should be exploited as a starting point at least to attract participants.

However, this does not mean that learning within these interventions should be only exam-oriented; there should be some focus on language practice that requires learners to be involved in continuous dialogues. At the beginning, and for establishment purposes, launching the CoP drew heavily on student teachers' pragmatic exam-oriented nature. However, as they became more motivated and immersed in the CoP online activities, they felt, as reflected in their reports, that in addition to the basic practice of exchanging of resources they needed to practise using English.

A final lesson is that future interventions with those participants should consider, especially at the beginning, the technical aspects of using the Web since many students were struggling with using some Web-based facilities. Some participants reported that they were unable to contribute in my Blog and Wiki because they needed direct technical support. Though the group facilitator sent explanatory e-mails detailing some technical advice in this regard, many participants felt they were still struggling.

Thus, this chapter reported on the first iteration as an online-mode-only intervention that was based on a socio-cultural learning theory in the form of a CoP. The conclusions made above will be cycled back into the next iteration to inform the new design principles that should resolve the above-mentioned weaknesses.

CHAPTER SIX: THE SECOND ITERATION

The main goal of this chapter is to report on the second iteration of this design study. Based on lessons learned from the first iteration (see Chapter 5) as well as some empirical data from the preliminary stage (see Chapter 4), the preliminary framework that informed the first iteration was refined into a more comprehensive and detailed one to address the weaknesses which were observed in the previous CoP design. The second iteration will be displayed as a micro-cycle of the design study, and hence, like the first iteration, elaboration on design framework, objectives, methodology, procedures, results, and discussion, will be provided.

6.1 Revised Design Framework

6.1.1 Sources

The refined design principles that should inform practice are an essential component of this framework as they should directly guide the process of designing an interventional programme for testing the new framework itself in the same context with the same participants. The intervention here takes the form of a short course (see Appendix M) to be implemented at AUCOE in Egypt, but from a blended approach to resolve the shortcomings of the previous design (see Chapter 5).

This framework also draws on literature review to employ a dialogic approach to learning that views the Web from an affordances perspective rather than from a technical perspective (Wegerif, 2007). Based on empirical data, the affordances of the Web for ELL were represented in some specialised ways of employing certain Web-based facilities identified as useful for student teachers in this context and which included: Communication and social networking tools; data locators or search engines; collaborative knowledge construction and information sharing tools; online language resources; and software programmes (see Table 5).

6.1.2 Language learning theory

6.1.2.1 *Web-based language learning approaches*

Nowadays, increasing tendencies towards co-operative, socio-constructivist, and dialogic learning have become dominant, especially within an ELL context (Erben et al, 2009). Though traditional objectives and fixed tasks can exist, students should be encouraged to do the tasks by choosing and employing the facilities that appeal to them and which can take learning further to open dialogues.

As a response to the increasing use of the Web for language learning purposes, new learning approaches, including e-learning, online learning, and more recently, blended learning (Cook et al, 2007: p55), emerged. Drawing on socio-constructivist learning principles, these new approaches share a common interest in employing new technologies. This led to the emergence of other approaches specific to language learning, including computer-assisted language learning (CALL) (Levy, 1997), Web-assisted language learning (WALL) (Ruiperez, 2002), and Network-based language teaching (NBLT) (Warschauer & Kern, 2000), all of which share the idea of employing computers and/or the Web as means for language teaching/learning both inside and outside the classroom.

Network-based language teaching (NBLT) was devised by Warschauer and Kern (2000) as an extension of CALL to provide a framework for ELL in a Web-mediated context. Highlighting the significance of the social context and discourse in language learning, Warschauer and Kern (2000) argue from a socio-cognitive perspective that language instruction is approached not only as providing comprehensible input, but also as assisting students to involve themselves in authentic social discourse situations. This perspective represents the present shift in ELT from CALL to NBLT to expose students to online authentic material and facilitate for them access to existing discourse communities (Kern & Warschauer, 2000: pp1-19). In particular, NBLT provides language learners with some features such as the authenticity of context that allows them to be sufficiently exposed to the target culture and language. These features of providing authentic context, real interactions, and online resources for language learning were highlighted by most interviewees (see Chapter 4). From an affordances perspective (Gibson, 1977; Greeno, 1994; Norman, 1988), these features and/or facilities provided by the Web enable language learners to innovate a variety of uses and functions of the technical tools to foster learning and language practice. In this sense, these tools become

a basis for wider interaction, global communication, online reading, collaborative/connective writing, and effective language production.

6.1.2.2 Blended learning from a socio-cultural perspective

Blended learning should be employed as a context and a learning solution to resolve the drawbacks resulting from using an online intervention with EFL student teachers. Hence, the main premise guiding the choice of this blended approach for the second iteration is the 'fitness-for-purpose' principle that draws largely on some interviewees' suggestions along with participants' feedback during the first iteration. As reported in the preliminary phase (see Chapter 4), some interviewees asserted that any deployment of the Web within the Egyptian context during this stage should take the form of 'blended learning' where the Web and its facilities and resources are used simultaneously with traditional instruction. This idea was reinforced by the results of the first iteration that showed many weaknesses of using online learning without any face-to-face interactions. Some interviewees also suggested some learning approaches, such as socio-culturalism, especially Vygotsky's ZPD concept, and cooperative/collaborative learning, to be used under the umbrella of a blended solution.

Thorne (2003) perceives 'blended learning' as a natural evolution of learning agenda that suggests an elegant solution to the challenges of tailoring learning to individual needs. Hence, it represents "an opportunity to integrate the innovative and technological advances offered by online learning with the interaction and participation offered in the best of traditional learning" (Thorne, 2003: p16). As illustrated in Figure 11 below, Blended learning can be conceived as a new approach that combines principles from both extremes.

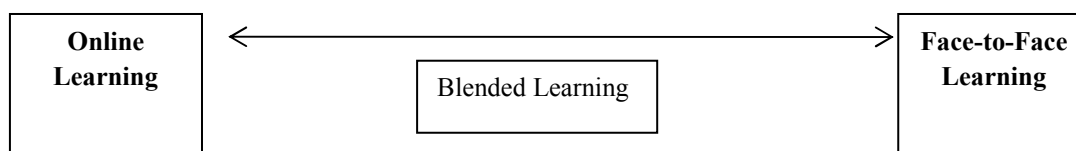


Figure 11: Blended learning on a learning continuum

Blended learning combines the strengths of both traditional and online modes to go beyond the capabilities of each separately. However, it is conceptualised in many senses since the term means different things to different people (Driscoll, 2002; Garrison & Vaughan, 2008; Sharma & Barrett, 2007). 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.

As illustrated above and based on interviewees' accounts, the Web involves many affordances that can facilitate ELL. In my context, the best in online learning that might help with resolving many ELL difficulties raised by interviewees, is represented in: (1) allowing for reflection and self-paced learning; (2) giving voice to shy learners to express themselves in writing; (3) addressing individual differences and personal needs; (4) exploiting the ubiquitous nature of the Web that can act as an online library; and (5) drawing on the global nature of the Web to access native speakers and practise English within authentic contexts.

Drawing on literature (e.g., Garrison & Vaughan, 2008), and based on drawbacks reported in the first iteration, the best in face-to-face learning can be represented in: (1) allowing for direct interactions, discussions, and modelling; (2) enabling direct guidance and feedback from the teacher; (3) allowing for human aspects necessary for learning, such as sympathy, non-verbal communication, and encouragement; (4) allowing the teacher to monitor learners while doing tasks and provide assistance when needed; (5) fostering the oral language skills of listening and speaking; and (6) enabling learners to meet regularly to discuss learning experiences and tasks, and thus, practise many social learning skills.

Under this major sense, I also draw on another sense: blending together multiple learning approaches or methods (e.g., dialogic learning and socio-culturalism) on one hand, and blending many Web-based technologies or facilities in the same context. As for learning approaches, for my specific purposes I draw on socio-cultural learning theory, especially the ZPD concept, or scaffolding, as a prominent practice in language learning (Erben et al, 2009). 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).

Scaffolding thus is needed to move learners to the next stage at which they can do the activity alone without guidance. It can take the form of interventions made by the teacher to support learners appropriately at the appropriate time and level of sophistication to meet the individual's needs (Pritchard, 2007). For example, the teacher can provide a list of words, materials, and hints that should help learners with understanding or solving a problem.

Using a socio-cultural theory here is based on Vygotsky's (1978) socio-constructivism that draws on both individual and social aspects of learning, but with prioritising the social aspect and the role of the social context in forming one's learning experiences. 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 that the individual appropriates through cultural tools into his/her psychological structure, not the other way around.

From a language learning perspective, this means that meaningful social interaction functions as a mechanism through which the transformation of a foreign language from the inter-psychological functioning (i.e. social interaction) to the intra-psychological functioning (i.e. internal thought or individual cognition) is realised (Ohta, 2000).

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. 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. It is mainly informed by the weaknesses observed in the first iteration where participants reported the need for more social/collaborative activities that would involve them in more insightful learning (see Chapter 5).

In terms of blending multiple Web-based facilities, I conceptualise this as blending together both synchronous and asynchronous tools which serve different purposes, as well as the different categories outlined in the Web-based facilities list (see Table 5).

Recently, there has been an increasing tendency to include blended learning in higher education driven by a realisation of the shortcomings caused by a forced choice between either an online learning mode, or a conventional face-to-face mode (Garrison & Kamuka, 2004; Garrison & Vaughan, 2008). Garrison and Vaughan (2008) advocate using 'blended learning' at present in higher education, rejecting what they call 'the dualistic thinking' that requires choosing between either traditional face-to-face learning or online learning. A blended approach can recapture "the traditional values of higher education while meeting the demands and needs of the twenty-first century" (Garrison & Vaughan, 2008: p5).

More specifically, a recent study by Collopy and Arnold (2009) addressed a blended learning solution in the context of pre-service teacher education. The blended design provided the opportunity to use time in a flexible way inside and outside classrooms; the blending of face-to-face and online environments provided a reciprocal structure for student learning where the online space supported the face-to-face environment by giving student teachers time to think, process, and have online conversations outside the scheduled class time.

According to some interviewees (see Chapter 4) and based on the first iteration, the main reason for making 'blended learning' an appropriate solution in my context is that it is not possible at this stage to implement online learning in Egypt. In line with this, Driscoll (2002) states that "blended learning allows organizations to gradually move from traditional classrooms to e-learning in small steps making change easier to accept". Borrowing the concepts of 'assimilation' and 'accommodation' from Piaget's theory to explain how new technologies can be integrated into literacy instruction, Reinking et al (2000) argue that when technologies are new, people need to assimilate them into their existing knowledge structures. However, later on when they become prominent as essential part of people's social practices, people become more willing to modify their existing knowledge structures to accommodate them.

6.1.2.3 Socio-cultural, dialogic learning activities

Based on educators' interpretations of Vygotsky's socio-cultural theory, it can be noticed that learning activities are collaborative. They include meaningful problem-

based tasks and joint negotiation of meaning in a social context in which the teacher acts as a guide (Warschauer, 1997). Hence, in a Web-mediated context under a blended mode, language learners need learning activities that provide opportunity for sharing ideas and negotiating meaning, whether in a face-to-face mode or an online mode. Consistent with the ZPD concept and scaffolding procedures, I believe that, in a socio-cultural learning context, learning activities and tasks should proceed from collaborative learning activities guided by the teacher to independent ones that can be done individually online. These activities are mediated by some Web-based facilities that should act, in Wegerif's (2009) terms, as dialogic spaces that take learning beyond the restrictions of the classroom. This allows for the reflection and the individual experimentation of ideas learned in the lesson. This practice may lead, in Bax's terms, to the 'normalisation' stage in which the new literacies or technologies become invisibly embedded in everyday practices, and hence 'normalised' (Bax, 2000).

6.1.3 Design principles

Based on the above argument, empirical data (see Chapter 4) and the lessons learned from the first iteration (see Chapter 5), the following design principles are suggested to guide the second iteration:

1. A blended approach that involves flexible shifts between both face-to-face and online modes during learning sessions, and between learning sessions and independent, individual online learning at home, should be employed to integrate Web-based new literacies into the target context of AUCOE.
2. A gradual exposure to the online mode is needed so that student teachers do not feel frustrated as learners.
3. Technical support with using Web-based facilities should be provided intensively, especially during the first half of the course.
4. There should be progression in each lesson from the technical component to the literacy/language component, and from guided practice to independent, online practice. Therefore, for modelling purposes, interactive online demonstrations should be employed before learners do tasks independently.
5. Most learning tasks should be done in the lab to resolve Internet access problems, with less work to be done at home.

6. There should be an online presence of the course through some online tools to be used both in class and online. This presence should take the form of a class Wiki, a class Blog, and an e-group to be launched specifically for the course.
7. During class sessions, teacher should be present all the time with learners to provide guidance, feedback, and support.
8. Cooperative/collaborative group work should be fostered among learners by asking them to work both in pairs and in groups while doing the learning tasks.
9. Learning activities should be connected, either directly or indirectly, to learners' needs and academic courses so that they find reason for learning, and also feel with direct and beneficial results.
10. Learning tasks fostering joint knowledge construction and ideas sharing should be designed so that they become Web-mediated.
11. A balance should be made between teacher's instructional guidance and learners' personal freedom to learn constructively.
12. The integration of Web-based new literacies into this context during this stage should be conducted at the curriculum level to avoid logistic and administrative difficulties.
13. Throughout the course, the Web should be employed in many ways based on an 'affordances' perspective where blending multiple Web-based facilities and functions takes place.
14. 'Scaffolding' that draws on Vygotsky's ZPD concept is an essential practice to be used both face-to-face and online, by student(s) to student(s), or by teacher to student(s).
15. Various types of interactions (both physically and online) should be utilised within this blended mode:
 - a) Teacher-student(s) interaction, both physically and online, through: giving instructions, short tutorials, and orientation; providing feedback or support; monitoring students' work online; and directing students when necessary.
 - b) Student-student interaction(s), both physically and online, through: working cooperatively and collaboratively in the physical environment in pairs,

threes, or in groups; e-mail communication from a student to another or to the whole group (e-mail group); and posting comments on contributions to the class Blog.

- c) Student-teacher interaction, both physically and online, through asking a question, writing a comment, and giving feedback.
16. Teacher should act as a facilitator in this context to facilitate learning, share experience, and manage interactions without dominating the learning situation.
 17. Contextual factors that might change the schedule or teaching/learning plans should be considered since dealing with messy learning situations require flexibility and adjustments to be made.
 18. Evaluation techniques should be innovative (e.g., reflective diaries and feedback reports) indicating whether learners are making progress as far as learning objectives are concerned. Thus, short objective tests should be avoided here because they are incompatible with the socio-cultural approach, and also because they do not capture the complexity of learning.

6.2 Objectives

As in the first iteration, the main objective here is to expand EFL student teachers' language-related literacy practices by integrating some Web-based new literacies into their education programme. The difference in this iteration was in the intervention that took the form of a short literacy course that employed a blended learning mode to overcome the weaknesses resulting from implementing an online mode only in the previous iteration (see Chapter 5).

From a design perspective, the course was employed as a tool to test how the new intervention would work in reality, and subsequently, how the previous framework could be modified accordingly. From a learning perspective, the intervention was an academic course that involved specific objectives, activities, tasks, and procedures. Therefore, a comprehensive introduction to the course was placed for participants on the class Wiki at: <http://assitutefl.wikispaces.com/An+Introduction>

For clarity purposes, some concrete objectives were identified: by the end of the course, participants were expected to be able to do the following:

1. Identify the range of possibilities and opportunities the Web enables for language learners within a pre-service EFL teacher education context;
2. Explore the range of uses that many Web-based facilities (e.g., Wikis, Blogs, e-mail, and e-groups) can afford and employ these facilities for authentic language learning purposes;
3. Communicate in English through the Web, both locally and globally, to accomplish specific objectives (e.g., locating relevant resources, answering a question, and getting clarification);
4. Select the favourite Web-based facilities and functionally use them for learning purposes;
5. Practise online reading and writing using many tools such as search engines, Blogs, and collaborative writing tools;
6. Exchange language learning-related ideas and/or experiences with others in a collaborative learning context, both face-to-face and online;
7. Use relevant language resources to supplement and support their learning; and
8. Express themselves in English using some available online spaces.

Based on those objectives, more detailed objectives were also formulated for each lesson in the course (see Appendix M).

6.3 Participants

Participants were the same as those for the first iteration, with a small decrease in number (30 EFL student teachers: 8 males and 22 females). They were thus familiar with my research design and objectives, and able to discern the difference between the two designs enabling modifications to be made. Participants were briefed about the nature of my study and their dual role as both learners and co-participants; they were guided into when to wear learners' masks where they should interact as language learners during the lessons, and when to wear co-participants' masks where they should help with improving the design by providing their feedback and personal impressions. This duality is assumed to be a part of the DBR methodology where research participants should take part in improving the design simultaneously while acting as learners (see Chapter 2).

6.4 Methodology

Under the umbrella of my DBR methodology and the formative evaluation approach I adopt to reach a final design framework (Nieveen, 2010), the following methods compatible with my blended design were employed for collecting data: online diaries and feedback reports based on them, field notes by an external observer, and structured interviews as a final assessment procedure. Since I was teaching this course myself, there was a danger of researcher's bias and student teachers' favourable bias or positive attitude, which is quite common in these situations. Usually, student teachers in my country treat any university teacher with great respect that might influence the way they report their feedback. They are likely to be quite positive about the course, and consequently state their opinions in glowing terms to satisfy me as a teacher.

To guard against this, I followed 2 main procedures: (1) I stated right from the beginning a protocol that includes a set of rules for dealing with this course that I discussed with them in the orientation session and made available online on the class Wiki: <http://assitutefl.wikispaces.com/An+Introduction> . In addition to the course objectives and benefits, I explained in detail their roles as co-participants who should help with improving the course by stating the weak points and suggesting way for improving it; (2) for triangulation purposes and to make the reliability of obtained data possible (Grix, 2004; Wellington, 2003), I employed external observer's field notes as an objective tool that should help with alleviating any possible bias and/or positive responses.

Thus, an external observer was appointed as an independent check to take some field notes while attending and observing the lessons. He was a colleague of mine working as a TEFL teaching assistant in the same college. He was interested in employing the Web for language learning purposes and could attend most of the learning sessions (90% of the lessons). At the beginning, he was briefed about the main objectives of my study and the main objectives of the course as part of the prototyping stage within my study. He was also enabled to access the online facilities employed in the course (i.e. the class Wiki, the class Blog, and the class e-group), and thus was able to monitor participants' performance both face-to-face and online. Further, participants were instructed to send him carbon copies (Cc) of all the e-mail messages sent to me, especially the weekly feedback reports.

Further, the external observer was provided with some guidelines into how he was going to take field notes. These include:

- 1) Keep an eye on my teaching and how participants interact with me during the lesson;
- 2) Take any notes that you regard as important as far as the study objectives and the course objectives are concerned;
- 3) Try to walk around to see participants' performance and interactions with each other;
- 4) Record any positive and negative points you notice, but focus more on those aspects in the lesson that need to be improved;
- 5) Go through participants' feedback reports to reinforce your field notes and ensure that participants do not flatter me as their teacher;
- 6) Monitor participants' contributions on the online spaces of the course and record any useful observations;
- 7) Check if there are any contradictions between what participants say (based on their feedback reports, for example) and what they do (based on their real performance and interactions in the classroom, for example).

The field notes taken by the external observer were thus intended as an objective assessment tool to guard against any possible bias by me as researcher within this data collection process. Field notes, along with logs and diaries, are important types of observation that can be used for assessment and reflection purposes (Lincoln & Guba, 1985: p273), and therefore, the assessment process was reinforced by the field notes taken. They took the form of free reflections which, in Polit and Beck's (2007: p405) terms, helped with recording the learning events, whether in class or online. The observer was taking these notes based on the main objectives of the course and the design principles stated for this iteration. The notes were triangulated with the feedback reports and the structured interview accounts obtained from participants as well as the contributions they made online (see also Table 6).

Participants were guided from the beginning into how to keep their online diaries. Recognising the value of diaries as a research tool, Wellington (2003: p118) assumes

that they provide an additional source of documentary data that explores the participants' experiences, activities, and perceptions. In this iteration, these diaries were intended to serve two main purposes: a) from an internal (learning) perspective, they helped participants to reflect on their own learning; and b) from an external (design) perspective, they acted as a record of participants' activities, products, and interactions to inform the improvement of the forthcoming lessons. Participants were asked to copy their diaries after each lesson into new e-mail messages to send as feedback reports on a weekly basis (see also Table 6 below).

For assessment purposes, a qualitative, thematic analysis of the accounts obtained through the methods indicated above was employed to evaluate the blended design. Through triangulating several data sources, many themes emerged to organise the data in such a way as to inform the course assessment process. The design principles guiding this iteration were thus used as the main criteria against which the whole intervention was evaluated.

While I was teaching the course, I employed formative evaluation for prototyping purposes. Thus, I used participants' feedback reports on each lesson from an ad-hoc perspective to improve the forthcoming lessons. This procedure was necessary to handle any sudden difficulties, incidents, and/or changes that could occur while delivering the course.

For example, the course was not available to participants in a paper-based format since the main materials to be used were available online on the class Wiki (<http://assitutefl.wikispaces.com>), but with no details on the specific tasks and activities to be done. After the first two lessons, some participants expressed a desire to see the tasks projected in front of them while simultaneously working on their computers. To resolve this, PowerPoint presentations were prepared in advance for each lesson. In addition, participants requested to know the topic of the forthcoming lesson in advance so that they could be mentally prepared for it, and consequently, I started to inform them in advance about these topics.

Further, owing to time constraints along with some technical problems experienced in the lab, some tasks were removed, merged with other tasks, or left as home assignment. Thus, flexibility during the course administration was required to improve the course delivery. In the same regard, based on some participants' feedback reports in which they declared that they were learning better from each other (e.g., "I feel better when I work

in groups and learn from other members in the group"), more focus was placed on the social/collaborative activities.

From a pedagogical perspective, the delivery of the course was guided by a socio-cultural learning theory that was extended by a dialogic approach to learning. Therefore, learning here was not didactic since I, as a teacher, could be a learner sometimes, and participants could act as teachers at other times. All of us were working together to construct knowledge and share experience. The adopted blended learning approach drew on the principles of Vygotsky's socio-cultural learning theory, especially the ZPD concept, which was taken further by a dialogic approach to encompass the facilities and affordances made possible by the Web and which could be used outside the classroom to help students to continue the learning dialogue. In this regard, I told participants that my role was more towards a 'Guide on the Side' and less towards a 'Sage on the Stage' (see also course introduction at the following address: <http://assitutefl.wikispaces.com/An+Introduction>).

6.5 Procedures

Based on participants' feedback reports in the first iteration (see Chapter 5), I concluded that more focus should be placed on the technical aspects of using the Web as a starting point in each lesson. When mastered, these aspects should help learners to delve deeper into the literacy and language aspects. A technical focus occurred at the beginning of each lesson to introduce a Web-based facility. Towards the end, language practice was highlighted to help participants to internalise these facilities and the new literacies associated with them. Thus, participants needed a lesson at least every week to get them on board and involve them in face-to-face interactions.

The intervention, or short literacy course (see Appendix M), consisted of 8 lessons, each of which introduced one or two Web-based facilities (e.g., Blog, Wiki, and e-groups). The course was delivered once a week, running from 15 February to 15 May 2010. Two procedures were followed: (1) Keeping in touch with participants outside class on a daily basis through e-mail, chat, and e-group to answer their queries and provide any technical support or guidance on an individual basis; and (2) holding consultations during office hours to address any concerns raised by learners.

The standard format of lessons (see Appendix M) was as follows: starting with an introduction or warm-up to set the scene and stimulate participants, followed by a reading task that involved a pre-reading question. This was followed by an online interactive demonstration to illustrate the possibilities and affordances of the new facility and then some collaborative learning tasks. Finally, participants were asked to perform an assignment task via online mode only.

To make the course realistic, the contextual tasks and activities administered to participants were associated with real courses they were studying, such as TESOL/TEFL Methodology. As in the previous iteration, this was intended to ensure more involvement from participants by drawing on their realistic needs. In addition, using examples from real courses studied in the education programme could engage participants in a realistic learning process, not a simulated one. This practice is the core of DBR as a research methodology targeting the messy context, not an artificial one (see Chapter 2).

From the beginning, participants were guided into creating a learning diary in the form of an online notepad (*Yahoo! Notepad*). This was intended to help them with organising their academic learning in general, and to access their written notes at anytime from anywhere.

Lesson One set the scene for participants, requiring them to wear the mask of co-participants. They were introduced to the term ‘Web-based new literacies’, and to the specific new literacies that they needed in their education programme through reading my online text on the class Wiki at: <http://assiuttefl.wikispaces.com/New+Literacies>

E-mail communication, as in the previous CoP design, was a crucial component in this course as it enabled asynchronous interactions with me as a tutor. Along with the weekly face-to-face interactions during the lessons, individual e-mails helped with clarifying many things and keeping participants on track on a flexible ad-hoc basis. Some shy participants preferred such type of communication that enabled them to express themselves freely. In addition, many personal problems, concerns, and enquiries were resolved through this type.

To provide participants with online spaces, the three main Web-based facilities of Blog, Wiki, and e-group used in the first iteration were also employed here, but with the new

benefit of using them face-to-face during the sessions. These facilities and how they were employed in the blended course will be addressed below.

The class Blog (<http://assiuttefl.blogspot.com>) was used as a tool through which participants could voice their reflections in response to some tasks or assignments. What distinguishes Blogs in general is that they allow for connective writing as a new form of literacy where the dialogue never ceases as long as contributions are being made (Richardson, 2009).

Compared with the first iteration, the number of followers increased from 8 to 17 after re-sending invitations to the whole group as participants were not forced to join. Further, technical assistance with joining and using the Blog was provided if needed. Most contributions and posts related to the studied courses, especially Drama, Translation, and TESOL/TEFL Methodology. However, some participants posted quotes, articles, poems, or links, which were indirectly useful as far as ELL and communication were concerned. Participants were encouraged to post anything in English, regardless of its relevance to their courses. This way, they could practise using English as a means of communication, and hence improve their language competency.

Participants' contributions to the Blog took two forms: posts made by members, and comments to posts made. Frequently, after a new post was made, some participants commented on it, and their comments could in turn lead to other comments, and hence, threaded discussions could result based on a single post. This would drive another participant to publish a new post. For example, one participant posted something related to a theme in *King Lear*, on which another one commented raising a new issue that stimulated further comments from other members. This led a further participant to make a new post addressing another theme in the play. The main goal behind using a class Blog was to develop useful ideas and open the space for further discussions, not to close the way by providing final products. To encourage learners to blog, I always initiated the discussion by posting something myself or commenting on posts or comments made since notifications of all contributions were e-mailed to all followers.

In the same way, the e-group used in the previous design (available at: http://groups.yahoo.com/group/searching_for_identity) continued. Its main function was to allow participants to exchange e-mails using one e-mail address: searching_for_identity@yahoo.com. This was intended to resolve the gender

sensitivity issue discussed previously. In addition, the e-group served the important function of uploading useful files to the group website.

The main function of the class Wiki (available at: <http://assiuttefl.wikispaces.com>) was to act as a platform for the whole course. Because the course was Web-mediated, the learning materials were to be available online, not in paper-based format. Moreover, sometimes it was necessary to focus on specific topics and/or aspects (e.g., terms, definitions, and examples) as part of the online reading process, and at other times, a single place was needed to include some links for participants to refer to frequently.

On the Wiki, an introduction to the course was provided (available at: <http://assiuttefl.wikispaces.com/An+Introduction>), with detailed explanations of rationale, objectives, rules, teaching/learning methods, and assessment tools. There participants were briefed about the nature of this Wiki as a content holder where the main reading texts were published and protected so that no one could edit them, with the exception of a few pages assigned for learning tasks. It contained material (e.g., readings, examples, links, and explanation of tasks) that could help with understanding some concepts and technical aspects. It also included links to the most important language learning resources (e.g., encyclopaedias and dictionaries) needed by learners while working online (available at: <http://assiuttefl.wikispaces.com/English+Language+Learning+Resources>). Hence, each page in the Wiki contained ‘Language Support’ links to connect participants with the resources page. Briefly, this Wiki acted as a main resource for the course that included the reading material for each lesson along with some important links.

6.6 Results

In summary, the sources of data that informed the findings of this iteration were as follows (see Table 6 below):

Table 6: Main Sources of Data Obtained in the Second Iteration

Main Sources of Data	Roles and Functions
Participants’ online diaries and feedback reports	These diaries contributed in the development of the course and the improvement of the lessons during administration. They helped student teachers to state their reflections and ideas on their learning and on how to improve the course in

Main Sources of Data	Roles and Functions
	<p>the future based on some guidelines. Feedback reports composed by participants within these diaries were sent by e-mail on a weekly basis after each lesson. Within these reports, participants were asked to write about the following:</p> <ul style="list-style-type: none"> a) Any new things learned from the lesson; b) The face-to-face and online activities; c) Any difficulties encountered; d) Any online communications and activities made independently; e) The things they liked or disliked; f) Any aspects requiring improvement. <p>Triangulated with the sources below, those reports provide the main source for evaluating this iteration.</p>
The external observer's field notes	<p>The main function of the external observer's field notes was to guard against bias from the researcher (as a teacher of the course), and thus provide an objective viewpoint on participants' interactions, contributions, and feedback. Those field notes were used as a checklist while analysing the data from other sources within NVivo to ensure objectivity, especially when compared with the participants' feedback reports.</p>
Participants' online contributions	<p>Participants' contributions were represented in the following:</p> <ul style="list-style-type: none"> a) Any posts and/or comments made on the class Blog (20 posts and 45 comments); b) Any e-mails and/or files exchanged on the group website (50 e-mail messages and 15 files); c) Any pieces added or edited by participants on the class

Main Sources of Data	Roles and Functions
	Wiki (15 pieces and 20 editing attempts).
Final structured interviews with participants	Those interviews were conducted at the end of the course to obtain participants' final feedback on the course as a whole including: the good points, the weak points, the benefits, and the aspects that need to be improved. These results of these interviews were triangulated with the above sources within NVivo in order to provide final objective and comprehensive results (see below).

Using NVivo 8, a qualitative-thematic analysis was conducted on participants' reports, the external observer's field notes, and the structured interviews at the end (see Appendix N). In addition, all participants' contributions on the e-group, class Blog, and class Wiki were reviewed by me and the external observer as reflected in his field notes. The easy and flexible coding process within NVivo of the multiple data sources mentioned above led to the emergence of many themes. These themes were checked, compared, and refined in a dialogic fashion (for examples of the technicalities of how NVivo works, please refer to screen shots in Chapter 4 and which provide views of data within NVivo and the themes/nodes emerging from the flexible coding process).

Here I provide examples of themes emerging from the thematic analysis supported by NVivo that I employed. First, the preliminary themes suggested to guide the coding process were derived from the main aspects that participants had to address in the semi-structured interviews (see Appendix N). These included:

1. Whether you found the course useful and why
2. Whether you acquired any Web-based new literacies
3. The things that you liked about the course
4. The things that you disliked about the course
5. Your opinion about the teaching methods/techniques, learning activities, and the learning theory used for delivering the course

6. The aspects which, in your opinion, need to be improved to make the course more effective in the future
7. Whether the course has helped you with your academic study in the English section and how
8. Whether the course has helped you to improve your English and how
9. Please write here any comments or personal impressions about the course

Thus, there was no preliminary theme dealing with attitudes towards the course to inform the data analysis process from the beginning. Later on, I saw some pieces in the external observer's field notes, which I coded as "Participants' attitudes towards the course", such as:

I feel that many participants love what they are doing; they seem happy when they learn something new about how to employ the Web within language learning contexts and some of them take notes of the new tips they learn during the lessons.

These pieces were triangulated with other pieces taken from participants' feedback reports such as:

Not only did we learn computers, Internet, and language; we also learned many things related to our academic study, such as the play of King Lear. I did really study from the class Blog and I'm sure that the information and knowledge we acquired will be in our memory all the time.

This in turn led me to come out with a new theme entitled, "Usefulness of the course" under which I could include some important things that student teachers learned as a result of the course. Then, throughout reading and coding many pieces in multiple sources, I could generate some minor themes under this main theme of "Usefulness of the course" such as: (1) New literacies acquisition; (2) language improvement; and (3) relevance to academic study (see 6.6.2 below).

Another example relates to the last section of the final feedback on the whole course in which participants were requested to write any general comments or personal impressions about the course (see Appendix N). The analysis of this section using NVivo 8 led to the emergence of many themes that could fit in with many categories. For example, one participant reported, "I liked this lovely course very much"; another said: "Because of this course, I loved computer and the Internet"; a third one said: "It

needed more interaction between the trainer and the learners so that they become able to understand, and for the trainer to be sure that he follows the correct direction"; a fourth one commented: "There were many things that we studied for the first time and which I see as very interesting"; a fifth one said: " This course was a good opportunity for me to achieve one of my goals; it will help me to be non-traditional teacher"; a sixth one commented: "I will miss the members of the group".

Those comments along with others could fit in with several themes such as: (1) Attitudes towards the course; (2) Usefulness of the course; and (3) Aspects that need to be improved (see below for more details). Therefore, I had to be flexible and allow pieces of data to overlap with each other. I also had to be flexible enough to allow new themes to emerge.

Thus, the following main issues resulted from the thematic, dialogic analysis conducted on the above multiple data sources:

6.6.1 Attitudes towards the course

Most participants (n=25) reported their positive attitudes towards the course. Some participants (n=5) viewed the course as the most useful one during that semester. Others (n=8) reported that it was the best course they had ever studied in their education programme because in every lesson, they learned something new that benefited them in their academic study. Some of them (n=4) went even further by admitting that because of this course, they loved computers and the Internet and decided to be online on a daily basis to benefit from the many facilities/resources provided by the Web for ELL.

As shown in 6.4 above, there is a danger that participants might have described their attitudes in glowing terms to satisfy me as a teacher. To guard against this, I reviewed the observer's field notes as an external source and found similar positive attitudes that he noticed and reported throughout many lessons during the course such as:

From their interactions with each other, I felt that participants loved what they were doing. Many of them were taking notes and checking with each other any points that they have missed.

However, because some participants held a competitive perspective towards learning, communication amongst the group, as reported by them and the observer, was occasionally weak. A change in attitude was necessary to support each other, since they were supposed to work collaboratively towards the common goal of expanding their

literacy practices.

6.6.2 Usefulness of the course

All participants reported that the course was useful in many ways. For example, most of them (n=20) reported that through this course they could learn many useful things and acquire new skills (e.g., using new options in e-mail, exchanging ideas through online tools like Blogs, and employing the Web as an ELL tool). Some (n=8) indicated that the course was useful as complementary to the educational technology course they studied the year before, which had provided some theoretical ideas without relating them to ELL; for them, my course could directly address the practical side of that course connecting it to language learning, and thus enabling them to experiment with many technological ideas in relevant contexts.

More specifically, the usefulness of the course related to the following main points:

a) New literacies acquisition

Most participants (n=25) reported that they acquired many new forms of literacy as a result of the course that can be summarised in:

1. Using Wikipedia and Google definitions for finding information about anything new during their academic study;
2. Creating accounts on social bookmarking websites like Delicious to bookmark favourite websites and language learning links;
3. Blogging by creating their own Blogs, posting something, or commenting on others' posts;
4. Searching effectively for information using Google as a search engine and employing many effective strategies for locating information;
5. Effectively using e-mail and employing the e-mail notepad as an online diary;
6. Using many online language learning resources (e.g., dictionaries, encyclopaedias, and English learning websites) for ELL purposes;
7. Going global by contacting native speakers through chat and e-mail, and subscribing to English learning/teaching e-groups;
8. Writing collaboratively and connectively through online spaces like Blogs and Wikis (e.g., commenting on others' viewpoints, editing each other's accounts, and writing collaboratively to produce a final product);

9. Reading critically and employing some online reading strategies (e.g., skimming and scanning WebPages, navigating through hyperlinks, and reviewing many websites to answer a question or solve a problem); and
10. Identifying and employing a range of facilities that Google provides and which can be relevant to ELL (e.g., scholar, translation, documents, images, and videos).

b) Language improvement

Many participants (n=20) stated that the course had played an important role in improving their English for many reasons. First, English was used as a medium of instruction, whether face-to-face or online, and all interactions between participants were in English, not in Arabic. Second, English use was fostered by the English articles and resources exchanged through the class Blog and e-group. Third, writing and communication skills improved through the practices of composing e-mails in English and chatting online. In addition, participants were involved through the class Wiki in a collaborative writing process where they were contributing and editing each other's accounts. Also, using the class Blog, as the observer noticed, developed their ability to write connectively by posting something, responding to others' posts, and developing threaded discussions in English. Fourth, reading skills improved through reading texts or articles on the class Wiki as an introductory task in each lesson. In this regard, one participant reported, "...the course helped me with improving my English, especially in terms of reading and writing through reading the articles on our class Wiki and through writing to you my feedback". Fifth, participants were exposed to more authentic and up-to-date English through some language learning websites like bbcarabic.com, and other useful resources. Finally, online dictionaries as better alternatives to paper-based ones were very helpful saving participants much time and effort. These online resources helped them to deeply explore many lexical, syntactic, and functional aspects related to English use (e.g., idiomatic expressions, communicative competence, word choice, and writing genres).

c) Relevance to academic study

All participants except one (n=29) reported that the course was closely relevant to their academic study as it helped them with studying other courses like Drama, TESOL/TEFL Methodology, and Translation. One participant commented,

Not only did we learn computers, Internet, and language, we also learned many

things related to our academic study, such as the play of King Lear. I did really study from the class Blog and I'm sure that the information and knowledge we acquired will be in our memory all the time.

Another commented,

I found this course very useful because you did your best in linking any lesson with our academic study explaining the benefits of any new facilities or tools in teaching and learning English.

The observer also noted,

Reviewing their feedback reports, I noticed that most participants were happy with what they were doing in the course. It was closely relevant to their academic study. Many of them stated they could employ Google definitions and Wikipedia in many courses like Drama, TESOL Methodology, and Translation.

Therefore, the demonstrations of the utility of the course in the participants' academic study can be summarised as follows:

5. Exchanging online materials and resources related to some studied courses;
6. Developing discussions on the class Blog relevant to some themes in the plays they were studying; the observer noted,

Participants' contributions to the Blog were closely relevant to the English courses studied this semester, especially the Drama course. Some posts were centred on King Lear and many ideas were developed in relation to the main themes of the play. The instructor shared many ideas by making posts and interfered to develop the discussion by raising some critical issues that might prompt further comments and contributions.

7. Using the useful links in the resources page on the class Wiki;
8. Using certain facilities such as *Google* as a search engine to obtain information online about some newly studied topics; *Google translation* to improve the quality of translating English texts into Arabic and vice versa; and Wikipedia to obtain basic or primary data on new topics, and thus build their schemata;
9. Using their online diaries to manage and organise their academic study. In the orientation session, participants were so enthusiastic that they created in their notepads many folders to use for managing the academic courses they were studying. In this regard, the observer noted,

Participants were so responsive and interactive that by the end of the session, they could create many notes and folders as a starting point to organise their academic study in the future. I heard some of them deciding to use it as an online alternative to the Microsoft word files to organise everything and save

assignments, memos, links, and resources related to language learning.

6.6.3 Language teaching/learning theory and methods

I will report in this section data relating to language learning theory, methods, and design as well as some leaning procedures and organisational techniques that influenced participants' learning.

Generally, the observer and many participants reported their admiration for the blended learning design. More specifically, they liked the gradual transition from controlled activities such as reading an article online to answer a pre-reading question, to the collaborative activities that involved pair work and group work, ending with some online tasks to be done independently. In the Blog lesson, for example, the transition from knowledge to practice led the observer to comment:

I liked the gradual transition in the lesson from knowledge about Blogs to doing practical tasks which should result in real posts. I noticed that participants were interested all the time. Even the professional Bloggers were enjoying the activities by sharing their ideas and experiences with others in their groups.

Most participants (n=28) commented positively on the diversity in the tasks, which employed the three organisational techniques (i.e. individual work, pair work, and group work). In particular, most of them (n=24) reported their enjoyment while working in pairs or in groups as they were exchanging experience and learning from each other. Further, some participants (n=12), as indicated in their feedback reports and as noticed by the observer, liked the collaborative, face-to-face activities and interactions, indicating that this was missing in the previous design. One commented: "We liked cooperative work as we sometimes learned more from each other than from the teacher". Others requested more collaborative tasks and activities claiming that they learned many useful things from each other and that getting used to each other during face-to-face interactions helped them to continue their interactions through the online spaces.

Many participants (n=10) wished that the teaching/learning methods employed in the course could have been followed for delivering all the academic courses they were studying in the college as these methods made them alert, active, and motivated all the time. In this regard, the observer reported:

Many participants could understand the idea of blended learning as indicated

by their feedback reports and posts. Some of them started to search for socio-cultural theory and insert notes about it in their online diaries.

Also one participant reported,

In my opinion the teaching methods were good as the lesson began with an introduction followed by reading a useful article about the topic, and then proceeding into doing activities individually or in groups, and this made the lessons easy to understand. So I see that these methods were good because they concentrated on both the theoretical and practical sides.

Further, some procedures were identified as useful and interesting by both the observer and participants. For example, introducing Wikipedia and Google definitions early in the course as a starting point for understanding new terms and concepts was regarded by the observer as a useful procedure. Independently at home, participants experimented with those two facilities in different ways (e.g., reading detailed accounts on Wikipedia related to Drama, and finding some Google definitions for many ELL terms). This indicates the usefulness of the blended design that flexibly shifts focus between face-to-face interactions in class, and the independent study online. Hence, the observer stated:

At the beginning, I thought that having only one session a week is a weakness in the course. But now I realise that the gap between the weekly sessions is wide enough to enable participants to consolidate the ideas they have learned in the lessons.

Another useful procedure was my own sharing of personal experience with participants by, for example, giving realistic examples and useful links. This was regarded by the observer as a positive point as far as knowledge construction was concerned:

It was an interesting point from the instructor to share with participants his personal experience with Wikis and Wikipedia. This would reinforce the idea of collaborative construction of knowledge and sharing experience by giving a good model to learners.

Similarly, introducing the 'bbcarabic.com' website as a warm-up technique in one of the lessons was seen by the observer as another interesting practice:

The TEFL section on the 'bbcarabic.com' website was quite useful for participants as it teaches English in the context of current world social and political events. Besides, many useful links and divisions in this section make ELL interesting.

In their feedback reports, participants commented favourably on the website and the idea of using it on a regular basis to update their knowledge about English by being exposed to new vocabulary, idiomatic expressions, and current life issues.

Another important procedure related to the extra support sessions, suggested by the observer to resolve any technical difficulties and address the participants' varying learning needs. Three sessions were held during the course; these were flexible, and informal, addressing participants' needs, queries, and/or concerns on an ad-hoc basis.

The occasional re-grouping of participants based on their levels of experience with certain topics was a useful procedure that facilitated interactions within the groups. In this regard, the observer commented:

Re-grouping participants based on their experience so that in each group, at least one expert would be there allowed proficient students to act as teachers to those struggling with using certain facilities such as Blogs.

My continual online presence with participants all the time helped with resolving many emergent issues and/or problems. It was encouraging to them as they received immediate feedback after sending e-mails or posts. As the observer commented:

I noticed that the instructor interfered in the Blog to encourage participants to participate by initiating the discussion and commenting on students' posts, and thus participants were never left alone.

According to many participants (n=15), this online presence was represented in: online chat to provide advice and resolve problems; replying quickly to all their e-mails; giving immediate feedback on all their contributions to the class Blog and Wiki; moderating the e-group; and answering all their questions and queries. Thus, participants commented positively on this online presence, with one stating:

I felt that I was never left alone. None of my e-mails was ignored and all my questions were answered. I felt that I was given the due attention that I needed and that you were totally devoted to provide all the needed help and support. I always found you there online exerting much effort.

6.6.4 The online spaces

As with the first iteration, some participants contributed more than others to the online spaces. However, the overall number of contributors increased significantly here (i.e. from 8 to 20 participants). As far as ELL is concerned, the class Blog worked as a space to practise connective writing as a new form of online writing. Unlike the case in

traditional, paper-based writing, participants were writing purposefully, sometimes in response to others' accounts, keeping in mind the potential audience. Besides, there was no end for the writing, as the dialogue would continue when others commented on what had been written and posted new pieces that stimulated discussion.

After a series of useful posts, relevant to what participants were studying, an active member commented: "Every day, my admiration of this Blog increases. I think that Blogs will be a very popular educational tool in the near future". The observer also noticed a reasonable increase in participants' contributions, reporting on many initiated threaded discussions that continued online.

In addition to its main function as a course platform, the class Wiki facilitated collaborative writing as a new ELL literacy form. For this purpose and based on some tasks, the Wiki included some unprotected pages to be edited by participants (e.g., <http://assiuttefl.wikispaces.com/Wikis+in+Education>). In response to a learning task, participants could work in groups to collaboratively write their personal accounts and edit and add to each other's accounts. Even the same participants sometimes revisited their own accounts to correct some spelling or grammatical mistakes.

After the learners studied Wiki, the external observer reported that, to some extent, the Wiki contributed in fostering collaborative writing; although this was insufficient to lead to great improvement. He suggested that extended practice sessions should follow:

The editing and revising activities existed, but to a limited extent, and they were not very influential in producing a final satisfactory product. That is why I stress the need for more practice through more organised activities that involve participants more in collaborative writing. As a starting point, this level of participants' performance is Ok, but more training is needed on using Wikis for practising EFL writing.

6.6.5 Aspects to be improved

Throughout participants' reports and the observer's notes, many aspects that need to be improved were identified. For example, the time and target of the course should be changed; it is better, as most participants (n=20) state, to administer the course to fresh, sophomore, or junior students, who might have more time and fewer pressures. For

senior students¹, many academic obligations negatively interfere with any focus on other extra courses.

The time space allotted for the course was an important issue. As the observer commented:

There was a problem with time as participants did not do enough practice. Yes, they will do assignment tasks at home and practise using Wikis throughout the coming week, but it seems that the topic needed more than one session to allow for more practice and following-up.

Most participants (n=25) reported that the technical problems that they experienced with computers in the lab hindered their learning and interactions. The observer also noticed that time was wasted in resolving technical difficulties, negatively influencing participants' understanding. The lab should be improved to ensure proper technical performance.

The process of collaborative writing through Wiki was not adequately reinforced. This was noticed, as indicated above, by the observer who suggested that there should be more practice sessions in which participants are given a problem or question to solve or answer by simultaneously using many Web-based facilities (e.g., using a WebQuest model). There should be a space for giving learners options to freely use the favourite facilities for accomplishing specific learning objectives.

Moreover, more organisation of participants' interactions, as reported by the observer and some participants, was needed to make participants more interactive during the learning sessions, with additional attention paid to participants' individual differences and varying learning styles.

These aspects will be considered in the final design framework proposed in the next chapter.

6.7 Discussion and Conclusion

I will discuss the results from both a learning perspective and a design perspective. From a learning perspective, the main indicator of effectiveness is to what extent the course objectives stated above were accomplished. Based on the empirical data presented above, I can conclude that generally these objectives were moderately

¹ 'Senior students' in my context refers to "4th-year EFL student teachers".

achieved as indicated by the number of new literacies that participants could acquire throughout the course as also reinforced by the observer. As with the first iteration, the main problem was one of quantity rather than quality; though each participant reported the acquisition of some new literacies as a result of the course, not all participants stated the same literacies. However, my main concern was with the idea of acquisition itself rather than with which participants acquired what literacies. Besides, the final list stated above (see new literacies acquisition in 6.6.2) is compatible with my main objectives.

Another important indicator is participants' performance as reflected in their contributions to the online spaces. As I noticed and as the observer reported, many participants were able to do the following: (1) exchange e-mails and upload files to the e-group website; (2) make many posts on the class Blog and comment on posts made; (3) write into the online diaries their feedback reports to send regularly following each lesson; (4) surf the Web independently to locate material relevant to other courses and exchange that with others; (5) bookmark many ELL-related websites and share them with others; (6) use the resources Wiki page to improve their language; and (7) use Wikipedia to know about new topics.

Other indicators of effectiveness included whether: (1) participants' attitudes towards the course were positive; (2) their language improved; (3) there was a clear relevance of the course with (and influence on) their academic study; (4) the teaching/learning methods were appropriate; and (5) they could employ the Web-based facilities introduced to them as ELL spaces.

The above results indicated that most participants had positive attitudes towards the course; some stated that it was the best course they had ever studied in their education programme, while others indicated how the course made them love computers and the Internet.

Many participants (n=20) indicated that their language improved as a result of the course for many reasons such as reading articles in English and using English as a means of communication. I intended to use English as a means of communication and delivery medium throughout the course, while using Arabic was extremely limited. The external observer also reported on the success of this technique as a means to immerse participants in the English language, both face-to-face and online.

Most participants reported that the course was closely relevant to their academic study

helping them with other academic courses such as TESOL/TEFL Methodology, Drama, and Translation. Thus, participants found a reason for studying the course and doing the learning tasks. The observer noticed a complicated relationship between this course and other studied courses:

- a) The course provided online spaces through which participants could exchange ideas/resources;
- b) There was a language resources webpage that stood as a main resource that participants drew on for many learning purposes (e.g., translating words/texts; accessing useful articles related to some dramatic plays; and finding information on some TESOL/TEFL-related topics);
- c) On the class Wiki, participants could read about useful topics such as literacy development;
- d) Participants were sometimes given freedom to tackle any of the studied topics. For example, they could post anything on the class Blog to open a discussion on any of these topics and upload any useful files on the e-group website.

All participants liked the methods used for delivering the course, though some of them suggested ways to improve the administration of the course in the lab. Others suggested being allowed enough time to get familiar with such new methods before launching the course. This will be addressed in the final design framework in Chapter 7.

From a design perspective, the main indicator of effectiveness is the extent to which the design principles stated above were accomplished and addressed. In this regard, it is extremely important to revisit and discuss those principles in the light of the results to generate the final design principles in the next chapter. Revisiting these principles, several conclusions were drawn:

First, employing a blended approach was effective because, as reported by both the observer and participants, it was flexible as an umbrella learning design under which socio-cultural and dialogic learning activities were employed. Further, it facilitated participants' learning by having flexible shifts between online mode and face-to-face interactions within the lessons, and between working face-to-face and independently online at home. The main goal was to realise optimum learning experiences by helping participants to work within a convenient learning environment. Within this design, a gradual exposure to the online mode was employed so that participants should not feel

frustrated. Most participants (n=20) felt that they were gradually exposed to the online mode by starting the lesson with controlled activities, like the introductions and demonstrations made by the instructor, and then asked to work in pairs and groups with other experienced colleagues, and finally do assignment tasks independently at home. In addition, all types of interactions were used under the blended design: Teacher-student(s), student-student, and student-teacher interactions. These were implemented both physically and online to serve the target learning objectives.

Second, progression was made in each lesson from the technical components to the literacy and language components. Lessons started with the main technical aspects that participants or learners needed to know and proceeded towards language learning practices as far as learners' academic courses were concerned. As indicated by the observer's notes and participants' reports, this progression was obvious and effective; participants liked it as it reinforced their understanding and enabled them to experiment with many technological ideas in relevant language learning contexts. In this regard, technical support in using Web-based facilities was provided intensively, especially in the first half of the course. It was represented by the demonstrations in each lesson using Data Show, which interactively illustrated the technical aspects of the target new facilities. These interactive online demonstrations were successful, as reported by the observer and many participants, as an introductory activity that was necessary for modelling purposes. It was also represented by the support sessions suggested by the observer, and which addressed, in detail, many technical problems encountered by participants. However, many participants were still struggling with some technical problems during the sessions and at home. This necessitated further investigation into more ways to provide technical assistance to student teachers in this context.

Third, I tried to do most of the work inside the computer lab so as not to disadvantage participants who do not have regular access to the Internet. However, because of the flexible approach I was adopting to manage time constraints, I had sometimes to cancel certain tasks at the end of the lesson asking participants to do them independently at home as assignments. Some participants could not do these tasks because of access problems. Generally, flexibility in handling the course was adopted to resolve emerging difficulties such as slow Internet connection speed, short time frame, and participants' busy learning schedules.

Fourth, the online presence of the course in the form of some facilities or tools was

successful as reported by the observer. Participants had access to the main course topics on the class Wiki; they could exchange e-mails and upload files on the e-group website, and post anything on the class Blog. This online presence was extremely important as an extension of the face-to-face sessions. Similarly, my presence as instructor, both during the face-to-face sessions and online, provided support and guidance. Most participants indicated that they were not left alone, whether in the face-to-face mode or the online mode.

Fifth, cooperative/collaborative group work was fostered among participants by asking them to work both in pairs and in groups to do some learning tasks mediated by the Web. Participants could learn many things from their colleagues and could enjoy what they were doing. Through working together, they could practise peer teaching and cooperative learning. Further, many learning tasks that fostered joint knowledge construction and ideas sharing were designed utilising some Web-based tools that addressed these learning aspects (e.g., e-groups, Blogs, and chat). However, the observer reported that the practice of joint knowledge construction was not very evident as there was a need for more training to participants, something to be considered in the new design framework (see Chapter 7).

Sixth, to make participants find reason for learning and feel with direct fruitful results, many learning tasks and activities were associated, either directly or indirectly, with participants' lives, needs, and studied courses. As the observer noticed, many participants participated because they felt this would benefit them in their academic studies. Some participants reported that the materials they exchanged online were useful and that, for the first time in their lives, they were studying Drama by reading the class Blog.

Seventh, a balance was attempted between my instructional guidance to participants into using the Web, and their personal freedom to learn constructively and collaboratively. Therefore, I acted as a facilitator without dominating the learning situation to allow for bringing participants' voices to the fore through discussions and online contributions. It was evident that participants needed guidance at least at the beginning; once they understood what was required, they could carry on with doing the required learning tasks. Therefore, 'scaffolding' that draws on Vygotsky's ZPD concept was implemented as an essential practice. This was evident during the face-to-face interactions as participants were exposed to interactive demonstrations at the beginning to show them

how to use the new facilities, and then were allowed to work in pairs and in groups to support each other. Re-grouping participants so that in each group there was at least one expert in the topic was useful to this scaffolding process. After these interactions, participants were required to work independently at home; during this online-only mode, they were supported through e-mail and chat.

Eighth, the integration of the Web-based new literacies into my target context was done at a curriculum level to avoid any logistic problems. However, more links need to be made between TESOL/TEFL Methodology and Educational Technology since some participants reported that my course was helping them to experiment with many technological ideas that they had learned in the educational technology course they studied the year before. I will discuss this point in detail in the next chapter.

Finally, evaluation techniques used to assess participants' progress were non-traditional, at least within my context, since objective tests were avoided; reflective tools, such as online diaries and feedback reports, were used instead, along with the external observer's field notes. While many participants liked these tools that enabled them to reflect on their learning, some admitted that it was difficult for them to express themselves properly; they could carry out the tasks efficiently without feeling like talking about what they were doing.

This chapter reported on the second iteration as a whole, which marked a micro-cycle of the whole design study. The results reached were discussed from both a learning perspective and a design perspective to gauge the extent to which the design principles guiding this iteration were tested. The next chapter will present, based on this discussion, the final design principles.

Phase III: The Assessment/Reflective Phase

CHAPTER SEVEN: THE FINAL DESIGN FRAMEWORK

7.1 Introduction

This phase involves generating a final design framework based on the previous cycles of experimentation (i.e. the two iterations), and thus answering the third and fourth questions of the study: "Which design principles are effective as guidelines for expanding the language-related literacy practices of Egyptian EFL student teachers at Assiut University College of Education (AUCOE) through integrating some Web-based new literacies into their education programme?", and "What are the implications of the suggested design principles for EFL curriculum design in the target context of AUCOE?"

The first section of this chapter presents some design principles based on the two iterations of the study while the second section presents the implications of these design principles to the EFL curriculum design process. It is worth mentioning here that in the wider sense of educational enquiry, the generated framework is not final; it is still open to further investigations and modifications based on other cycles of experimentation conducted by future research studies (i.e. experimental, action research, and co-relational studies) to test these principles. This framework, as we will see below, is the output of a dialogic, interactive relationship between evidence from both empirical data and literature review.

7.2 Final Design Framework

The suggested design principles are organised around five focal points: (1) learning design, (2) language learning theory, (3) course administration, (4) learning models and activities, and (5) Web-based facilities as online spaces for language learning and practice. These topics are intended only to classify these principles, not to create boundaries between them, and therefore, the design principles are sequenced numerically in a natural flow regardless of the topics they belong to.

7.2.1 Learning design

Design Principle 1: A blended learning design should be employed as a flexible solution for integrating Web-based new literacies into the target Egyptian context of AUCOE with the aim of expanding EFL student teachers' language-related literacy practices.

Based on the second iteration results (see Chapter 6), a blended learning design is considered the best fit for the target context because (1) it was flexible enough to encompass both face-to-face and online interactions, and hence allowed for smooth shifts to be made between both modes in a way that served the learning objectives; (2) it allowed for the synergetic utilisation of multiple learning theories (i.e. both individual and social ones) to reach the desired learning outcomes; (3) it offered a mid-way solution during this transitional stage in the Egyptian context from the traditional face-to-face mode to the full online mode (see also interview results in Chapter 4); (4) it was an appropriate solution for developing WMLL activities where participants found online spaces for continuing their unfinished, face-to-face dialogues in English, and thus extended ELL beyond the classroom walls; (5) it enabled participants to exploit both collaborative interactions (whether face-to-face or online), and the independent reflections online, for improving their English.

In the second iteration, student teachers reported many positive outcomes of the blended design that were compatible with those reported by Collopy and Arnold (2009). They reported benefiting from both the online facilities that provided additional connections, spaces, and resources, and the face-to-face time that allowed for developing a deeper level of comprehension through interactions where they synthesised and constructed knowledge, generated links to larger topics, and discussed application in the real world. Moreover, this design provided the opportunity to flexibly employ time both inside and outside classrooms and meet the needs of differing participants at different times. From a language learning perspective, the design also provided many opportunities of communication and collaboration in English that maximised language practice in a purposeful, pragmatic fashion.

The above discussion is closely relevant to Driscoll's (2002) four different senses that can explain the varieties that blended learning takes (see Chapter 6). In my context, these four varieties can be employed in the following senses: (1) multiple Web-based facilities, features, and/or technologies (e.g., Wikis, Blogs, e-groups, and e-mail) can be

blended together while student teachers are performing specific learning tasks; (2) both constructivism and socio-culturalism as two learning theories can be synergetically blended and integrated to complement each other since it is pedagogically difficult to isolate the individual learning aspects from the social ones; (3) both face-to-face and online modes can be flexibly exploited together to serve the desired learning goals; (4) instructional technology can be combined with actual language learning tasks in a way that improves language competencies and skills.

Design Principle 2: Under the blended learning design, flexible shifts should be made during the lessons between face-to-face interactions and online interactions.

As indicated by participants in the second iteration, such flexible shifts were necessary for experimenting with new ideas using their computers, and thus acquiring some new skills and strategies. Teaching, therefore, should be flexibly adjusted so that learners can appropriately shift attention between the teachers' demonstrations, the screens ahead, and their face-to-face interactions with each other and/or the teacher. Thus, for example, learners can stay online for 15 minutes to perform a learning task; however, this might be interrupted by discussions with other colleagues or questions directed to the teacher.

The goal here is not to distract student teachers' attention while learning, but rather to allow them to freely move between various learning resources while doing the tasks. In the second iteration, none of the participants reported that these shifts distracted their attention or negatively interfered with their learning. On the contrary, they reported that they felt with a relaxing social environment that helped them to enjoy learning. However, teacher's guidance and directions are important, especially at the beginning of the course, for enabling student teachers to gradually get familiarised with these shifts.

Generally, I think that these flexible shifts within a blended mode are compatible with the nature of today's learning. Nowadays, learning is no longer a linear process that requires learners to be totally focussed all the time on one resource or learning mode (Metiri Group, 2008); rather, it has become a complicated, multi-modal, and multi-dimensional process that simultaneously capitalises on multiple resources and senses. This involves making quick and flexible shifts between different modes that serve the overall learning objectives.

Design Principle 3: Technical training on basic computer and Internet skills is an essential prerequisite for EFL student teachers to avoid and/or minimise technical problems that might occur while learning under the blended mode.

Results of the two iterations indicate that participants encountered many technical difficulties, and therefore, a specialised technical course preceding the blended course is recommended. Before the iterations, although participants were identified through a screening questionnaire (see Appendix H) as possessing reasonable levels of ICT skills, many of them experienced some technical difficulties that hindered their performance and interfered with their learning. An additional technical course on basic computer and Web-based skills would ensure equal levels of technical preparation, and thus diminish problems of varying technical needs.

The main premise underlying this technical preparation is that once the technical difficulties are removed (or at least minimised), student teachers can make a better use of Web-based technologies within an ELL context, and thus can go further with expanding their language-related literacy practices.

Design Principle 4: While designing any courses for EFL student teachers that aim at involving them in new language-related literacy practices mediated by the Web, links should be made with other academic English language courses so that the usefulness and practicality of the course can be realised.

Throughout the two iterations of the study, I intentionally linked my interventions with other academic language courses that participants were studying so that they could find reason for participating and doing tasks, and relevance to their academic study. Since participation was voluntary, this practice was intended to attract and involve more student teachers who were so pragmatically oriented that they would not exert effort in something irrelevant to their study. Further, in their feedback (see Chapter 6), most participants indicated that a main reason why they enjoyed the course was its relevance to their academic study; this helped them to consolidate many ideas/concepts they were studying in other language courses, and transfer new knowledge and practices.

From a technological perspective, integrating new technologies into a language teacher education context should allow opportunities for experimenting with the new technological ideas in realistic language learning situations. Warschauer (2002a/b) emphasises this fact in his 3-year study into the Egyptian context; he notices that

Egyptian local circumstances and needs should be taken into account while integrating new technologies into language learning contexts, especially in the language teacher education programmes provided by the Egyptian colleges of education (see also Abdel Latif, 2009; Mekheimer, 2005).

From a DBR perspective, creating links with other academic courses should help with creating a context for the interventions that should target natural or ‘messy’ classroom situations (see Chapter 2), not artificial ones as is the case in experimental studies. This way, the target student teachers would find themselves attached to the overall context in which they learn, and thus, they would behave normally and do the required learning tasks as part of their academic learning.

7.2.2 Language learning theory

Before going through the design principles of this section, it seems useful to give a brief background on the status-quo of language learning theories and approaches in Egypt. Generally, the language learning theory that has been dominating the Egyptian context since the late eighties is the communicative approach, and consequently, the communicative language teaching (CLT) method (see also Schaub, 2000). Adopting this approach was manifested by introducing the ‘Welcome to English’ series into the Egyptian preparatory schools in 1986 as reaction to the previously used grammar-translation method that failed to qualify students to use English for authentic communicative purposes (Bates, 1988; El Naggar et al, 2000; Nazir, 1989). Based on CLT, all the formal language courses for all the educational stages in Egypt were designed (Gahin, 2001; Ibrahim, 2008). This state has been influencing the TESOL/TEFL methodology courses provided by the Egyptian pre-service EFL teacher education programmes; the main focus has been on training EFL student teachers on using the communicative approach for teaching English (e.g., how to teach grammar, vocabulary, and the main language skills such as reading and writing communicatively) (see also Abdel Latif, 2009; AUCOE, 2010).

In EFL teacher education programmes with specific reference to AUCOE, the methods used for delivering language courses are didactic; they are totally based on lecturing, knowledge transmission, and rote learning, with little use of CLT and no use of socio-constructivist or dialogic approaches. The teaching/learning process, as Gahin’s (2001: p272) study concludes, is mostly theoretical and exam-oriented, with no or little focus on engaging student teachers in practical activities and new language-related literacy

practices (see Chapter 1). It is surprising that many Egyptian EFL teacher educators do not utilise the CLT they defend in delivering the content of the TESOL/TEFL methodology courses so as to be good examples to their students. This creates a wide gap between theory and practice causing the failure of prospective English teachers to implement this approach in their classrooms (Nazir, 1989).

The aim here is not to imply that the communicative approach is the best fit, but rather to stress that, for many reasons, the language teaching approach adopted by the Egyptian system is not properly implemented in reality; thus, a wide gap is created between the national language teaching standards and the real teaching in the Egyptian classrooms. Many local factors, as Gahin (2001) argues, hinder the proper implementation of CLT in the Egyptian context such as teachers' beliefs, low income, and heavy teaching obligations, as well as the increasing numbers of students in schools (e.g., a classroom in an urban public school sometimes contains 70-80 students).

Based on the results of the two iterations, there seems to be a need to shift focus to approaches that consider both the individual and social aspects of learning, and capitalise on the available technological innovations and Web-based facilities that have become an essential component of our everyday practices. Using these approaches is essential when integrating innovations and new technologies into the Egyptian context is the target.

However, the contents of the TESOL/TEFL methodology courses in Egypt in general and in AUCOE in particular, are not sufficiently up-to-date to support this shift; centred around traditional methods (e.g., grammar-translation method, direct method, and CLT), they do not cover many alternatives recognised world-wide such as socio-culturalism, constructivism, dialogism, and WMLL. This is not to argue against these methods, but to suggest that the methodology courses should address other approaches so that student teachers can be aware of a more comprehensive range of options and possibilities. Moreover, EFL student teachers should learn the contents of the language and methodology courses through these approaches so that they can realise a connection between theory and practice, and consequently, implement these approaches in their future teaching.

Design Principle 5: Under the umbrella of blended learning, a dialogic, socio-constructivist pedagogy should be employed as an ELL approach that guides the

process of expanding EFL student teachers' language-related literacy practices at AUCOE.

This principle summarises the learning theory or approach to be employed in the target context since a learning theory is needed to guide the use of the Web. Palloff and Pratt (2005), and Vrasidas and Zembylas (2004) contend that technology itself does not teach or transform pedagogy; rather, it is the way we approach or employ it that makes the difference. Thus, if mediated by ways consistent with meaningful learning and interactions, using the Web might contribute to learning and professional development. Further, learning/teaching approaches that highlight memorisation and rote learning at the expense of knowledge construction and social interaction should not be employed. A Web-mediated learning environment needs socio-constructivist/collaborative approaches that highlight learners' active roles and open new horizons/spaces for dialogue (Wegerif, 2009).

Results of the second iteration (see Chapter 6) indicate that focus should be on both personal and social aspects of learning. Participants needed both the personal freedom that facilitates reflection on learning, personal construction of knowledge, and doing assignments individually at home, and the social interactions with other classmates through pair work and group discussions that facilitate collaborative knowledge construction. In their feedback reports, participants indicated that learning and studying language individually with little cooperation with other colleagues, was the dominant practice in formal learning settings. Throughout the blended course, they found the socio-cultural activities very useful as they started to "learn from each other". Further, many participants indicated that combining both individual/reflective and socio-cultural/collaborative activities was a great advantage of the course; this practice enabled both shy and bold learners to learn since both physical and virtual spaces were employed so that all participants could express themselves in the ways they liked.

In particular, the progression of the lessons from the controlled, face-to-face activities to the freer, independent ones online helped many participants to consolidate new ideas and master new literacy skills (see Chapter 6). Similarly, using scaffolding helped many participants to move flexibly from social learning to independent, self-paced learning. The online spaces in this regard helped with extending the learning experience outside the classroom by opening more dialogues that fostered language practice.

In this regard, some literature indicates the usefulness of utilising both constructivist and socio-cultural learning simultaneously within the same learning situation/design. For example, Squires & Preece (1999) argue that when taken together, the central notions of constructivism and socio-culturalism can be described as 'socio-constructivism'. Also, perceiving the existence of two metaphors for learning: 'acquisition' (i.e. individual constructivism), and 'participation' (i.e. socio-culturalism), Sfard (1998) argues for an appropriate combination of both to underpin the advantages of each, while keeping their respective drawbacks at bay. Similarly, Salomon and Perkins (1998) posit that 'acquisition' and 'participation' can interrelate and interact in synergistic ways so that both individual and social learning aspects can interact over time to strengthen one another in a 'reciprocal spiral relationship'.

Empirical data obtained in the second iteration from participants' feedback reports and the observer's field notes reinforce a dialogic, socio-constructivist learning pedagogy because: (1) participants indicated their satisfaction with any course catering for both their individual and social learning needs; (2) the online spaces opened and extended dialogue among learners where each had an equal opportunity to participate, and thereby a more democratic environment, in MacDonald's (2002) terms, was created; (3) when communicative practices were fostered in English through both face-to-face interactions and online spaces, participants felt that their English language was improving.

This pedagogy draws also on several useful accounts including the following: Squires and Preece's (1999) view of learning, Schneider et al's (2002) Web-based socio-constructivist learning scenarios, Wegerif's (2007) argument for the multi-dimensional learning space of the Web that facilitates meaningful learning, and Woo and Reeve's (2007) argument for a meaningful interaction that should be created within a Web-based learning environment based on a socio-constructivist framework.

Generally, constructivism draws on the premise that learning is an active process where students construct new ideas and concepts based on their current knowledge (Bruner, 1986; Piaget, 1959). Active construction of meaning should be encouraged inside classrooms to generate understandings and powerful ideas rather than facts (Wilhelm & Friedemann, 1998: p30) out of social experience and realistic contexts (Honebein, 1996). Rather than relying on the teacher to guide their thinking, learners make their own discoveries through active learning opportunities that allow them to create their

personal meanings and associations (Eagleton & Dobler, 2007: p9). Thus, knowledge is constructed collaboratively in real contexts through social negotiation (Jonassen, 1994).

On the other hand, Vygotsky's socio-cultural theory of mind (Vygotsky, 1978; 1981) connects together both the human internal cognitive aspects and the external socio-cultural factors. 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. Hence, it becomes a theory of education (Bruner, 1985) and language development (Bronckart, 1995).

Cobb (1994) argues that rather than perceiving them as two opposing perspectives, both constructivism and socio-culturalism can be merged to reinforce and complement each other when used concurrently within the same learning context. An inevitable interaction exists between both the internal and the external worlds of learners that Butterworth (1982) refers to as the intertwined social and individual aspects of development that were acknowledged by both Piaget and Vygotsky. However, while Piaget attributed the primacy to the individual (Piaget, 1959), Vygotsky attributed the primacy to the social environment and the role of the socio-cultural context in mediating human learning. That is why, as I believe, Vygotsky's theory is known as social constructivism to be distinguished from Piaget's cognitive constructivism since both theories are constructivist in a sense.

Garrison et al (2000) state that recent educational literature has focused upon the premise that a worthwhile learning experience must consider the learner's personal world that is characterised by being reflective and meaning-focused, as well as the shared world that is characterised by being collaborative, knowledge-focused, and associated with a purposeful and structured educational environment. In this regard, Wegerif (2007) argues that both constructivism and socio-culturalism are important for learning, but need to be taken further by a complementary dialogic approach.

In a nutshell, my approach is represented in 'blended learning' as an umbrella approach involving a dialogic, socio-constructivist pedagogy that draws on both Vygotskian socio-culturalism, especially his ZPD concept (see also Squires & Preece, 1999), and Piagetian constructivism (Piaget, 1959). Under this pedagogy, the Web should mediate language learning by opening more dialogic spaces for ELL and communicative practice (Wegerif, 2007). As the second iteration results indicate, these online spaces

(e.g., Wikis, Blogs, and e-groups) can extend and foster socio-constructivist learning by enabling more opportunities for language practice that utilise both the individual and social aspects of learning, but while extending a learning dialogue fostered by some Web-based facilities that host learners' contributions (Wegerif, 2007). Thus, a dialogic approach takes learning further to more spaces, perspectives, and options that extend beyond any restrictions imposed by the context and extend the Vygotskian ZPD concept to include a series of open dialogues. From this dialogic approach, blended learning represented in combining the use of Web technologies with face-to-face pedagogies becomes important for engaging learners in dialogue across difference (Wegerif, 2009).

This pedagogy has specific implications for ELL. For example, it marks a shift in language learning theory and practice by moving language learning out of the abstract, isolated internal mental functioning into the real world of human communication (Wertsch, 1991: p28) through suggesting a participation metaphor of language learning as an alternative to, and an expansion of, the dominant input-output (computation) model (Lantolf, 2000). Also, it highlights the role of mediation that was validated by many studies as having a powerful effect on second/foreign language learning (e.g., studies by Roy, 1988 on the mediational effects of L2 writing and Warschauer, 1998, on computer-mediated L2 interaction).

Design Principle 6: EFL student teachers need to be gradually introduced to the dialogic, socio-constructivist pedagogy that is new to them so as to change their competitive learning attitudes and get used to learning together and supporting each other.

The two iterations indicated that EFL student teachers in AUCOE perceived learning from a competitive perspective, and thus were struggling to get the highest scores in their academic courses. This competitive nature is a common feature in the Egyptian educational system in general, which encourages rote learning and memorisation (see also Chapter 1). Therefore, it is difficult to move learners towards a dialogic, socio-constructivist pedagogy without adequate preparation and/or orientation that should gradually involve them in collaborative work towards achieving some learning goals.

This is consistent with literature in the field that indicate the need for collaboration among student teachers for Web-based technologies to be integrated into EFL teacher education contexts. For example, Kamhi-Stein's study (2000) concludes that in order to integrate new Web-based technologies such as discussion boards into TESOL teacher

education programmes, student teachers need to develop knowledge through collaboration while using these Web-based tools. They should be engaged in multiple dialogues for various language learning purposes with a high degree of peer support, communication, and collaboration.

Design Principle 7: Under a socio-constructivist pedagogy, the Web should be viewed from an 'affordances' perspective that stresses its dialogic, socio-cultural nature as well as its mediational function in literacy development and language learning.

The social context plays an important role in shaping the impact of technology. Based on the preliminary empirical data, the two iterations of the study, Feenberg's (1991) critical theory of technology, and Woo and Reeve's (2007) view on Web-based interactions, I argue for an 'affordances' perspective for viewing the Web that recognises the dialogic and socio-cultural nature of its facilities. An 'affordances' perspective recognises the learning possibilities and opportunities of the Web. 'Affordances' refers to "the perceived and actual properties of the thing, primarily those fundamental properties that determine just how the thing could possibly be used", and hence, provides "strong clues to the operations of things" (Norman, 1988). Drawing on this definition, Gibson's (1977) theory of affordances, and participants' accounts throughout the interviews (see Chapter 4), I argue that the Web possesses unlimited possibilities for language learning that need to be recognised and efficiently employed. From a human-computer interaction (HCI) perspective (Sears & Jacko, 2007), the interaction between the learner and the Web is the means through which these affordances can be brought to the fore. In this sense, the two iterations of the study (see Chapters 5 and 6) represented a dialogic exploration and a collaborative discovery of these affordances through exploiting the Web within an ELL context. Thus, even if not identified, these affordances still exist and offer many potential benefits and properties that need to be disclosed and utilised.

Accordingly, the Web should be contextualised within social practices and interactions to act as a 'battlefield' where individuals and social groups struggle to influence and change technological design, uses, and meanings in a dialogic fashion throughout which its potential affordances can be brought to the fore (Wegerif, 2007; Woo & Reeve, 2007). This interaction can exist within a Web-mediated teaching/learning context where both teachers and learners interact with Web-based technologies in different ways creating different uses to form meanings.

Based on interview data (see Chapter 4), some EFL teacher educators conceived the Web as a multi-purpose tool that can function as: (1) an interactive environment that fosters collaboration and knowledge construction among learners; (2) a communication tool that enables multiple modes; and (3) a rich resource or online library for language learning (see also Leu et al, 2009). The Web, in this sense, becomes a powerful tool for exploration, discovery, and collaboration because it provides virtual environments and other tools that activate prior knowledge, promote new knowledge, highlight connections between concepts, and foster interaction among learners (Eagleton & Dobler, 2007: p10).

Moreover, based on the two iterations, it has become evident that the unique nature of the Web makes it considerably better than any other language teaching/learning aid since it is: (1) a ubiquitous tool available anywhere at anytime; (2) the easiest, quickest, and most flexible data locator; (3) a multi-modal tool that provides language learning material in a variety of formats; (4) a means of communication, both locally and globally; (5) a means for publication and social networking; (6) a means of self-expression in the target language; and (7) a means for resolving language learning difficulties when the teacher is not available through checking online resources like dictionaries, and receiving feedback online.

Some literature in the field reinforces these points: Thorne (2008) stresses that the Web provides multiple modes of communication that can be employed to serve a variety of purposes. Similarly, Lankshear and Knobel (2006), Leu et al (2009), and Warchauer et al (2000) contend that the Web has become the most efficient system in human history for delivering new technologies to read, write, and communicate, and thus, has become the defining technology for literacy and language learning in the 21st century. Therefore, as Coiro et al (2008: p28) argue, the Web needs to be recognised, not as a technical tool, but as a unique context for literacy and language learning.

From a dialogic perspective, Wegerif (2007; 2009) identifies a need to shift the Web from the technical language of mechanisms to a dialogic, pedagogical language that involves an understanding that learning takes place in a genuinely social environment. Within this environment, it is important to form relationships with significant others in a way that mediates learning so that teachers establish relationships with students, and thus motivate learning. In other words, since it has become a platform that mediates and connects multiple voices in dialogue, the Web should be conceived as a context for

meaning negotiation on this internal dialogic space more than as an external structure (Wegerif, 2009). This has significant implications for education, literacy, and language teaching/learning where interactions and continuous dialogues are extremely important. Hence, the Web should be perceived as a tool that addresses and mediates the dynamic, multi-dimensional, and dialogic nature of literacy and language learning (Erben et al, 2009), and as a context that creates new spaces and options for learning. In this sense, the Web possesses affordances that can facilitate a communicative environment, and foster effective humanistic learning/teaching approaches.

The relationship between the essential elements of language, literacy, and the Web should be considered. As Figure 12 below indicates, I envision the Web as a central medium that mediates language/literacy learning and connects between both the individual cognitive processes and the socio-cultural context. This relationship is complex; on a more general level, the Web mediates both the internal cognitive/psycholinguistic aspects, and the external socio-cultural aspects. While the cognitive processes going on while users interact with the Web are significant here, the social practices attached to literacy play an important role within this relationship. Hence, Leau and Kinzer (2003) suggest that a new theoretical framework of new literacies should be grounded in the social practices of Internet-based literacies and the conditions under which these social practices occur, develop, and evolve in order to adequately understand them.

In their 'electronic literacy approach' to ELL, Shetzer and Warschauer (2000) perceive this relationship as complicated, since the question of which is influencing the other is not easily grasped; while educators previously considered how to use ICTs to teach language, it is now necessary to also consider how to teach language to enable learners to effectively use ICTs. Working towards both objectives is what distinguishes this approach to network-based language teaching.

In the same vein, Castek et al (2007) argue that new technologies transform literacy, and literacy also transforms new technologies, resulting in new literacies, which are simultaneously related to both language and the Web. These literacies need to be studied to help students to succeed while the Web is becoming "one of the primary media of literacy and communication practices", not just a teaching tool (Shetzer & Warschauer, 2000).

Therefore, I argue that language/literacy and the Web connect together through a complicated, non-linear relationship governed by both cognitive and socio-cultural aspects; many cognitive/psychological aspects exist inside the individual's mind enabling him/her to deal with various means of literacy. Simultaneously, literacy practices endorsed and valued by society serve to exploit and develop these internal aspects the individual possesses in an interactive context where many socio-cultural factors have roles to play. The Web is the tool that mediates and links both these external and internal processes.

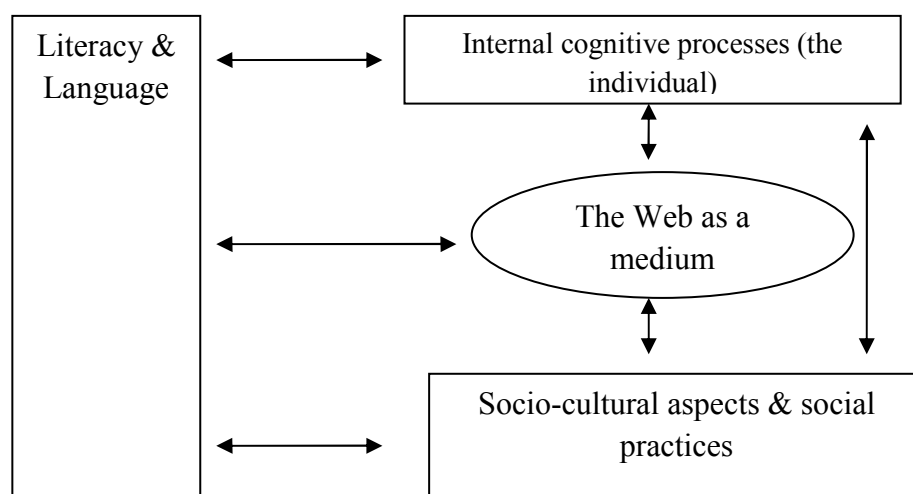


Figure 12: Illustration of the interactive relationship between literacy/language, the individual, the Web, and the social context.

In a nutshell, four essential elements need to be considered here: (1) the internal cognitive/psychological processes in the human mind; (2) the means or media (e.g., the Web) through which the individual acquires literacy; (3) the recognised socio-cultural practices in the context where learning occurs; (4) literacy and language as a general aspect which influences (and is influenced by) the other components (see Figure 12).

7.2.3 Course administration

Design Principle 8: Like all the other courses administered at AUCOE, the target course should be obligatory, not optional.

An interviewee in the preliminary stage (see Chapter 4) asserted that the nature of the Egyptian students necessitates making important courses obligatory and associated with the marking system. This is necessary, at least at the beginning, to ensure learners'

involvement. Later on, as many teacher educators noticed, student teachers would admit the usefulness of the course, especially after doing many of the tasks; this would not be possible if the course was optional.

For many ethical considerations (see Chapter 2), the interventional course was optional for the selected participants. However, this lack of obligation, as many participants indicated (see Chapter 6), made some participants not punctual, and others unwilling to take things seriously. As stated in Chapter 6, I tried to resolve this problematic issue by drawing on the participants' pragmatic orientations through linking the course with other language courses, and thus bringing realistic examples of direct benefit and relevance.

Nevertheless, after experiencing problems of attrition and punctuality during the course administration, I concluded that in the future, the course should be obligatory to ensure seriousness. In addition, formal assessment procedures followed in other courses should exist so that tangible scores are assigned based on student teachers' performance.

Design Principle 9: The target course should be administered to younger EFL student teachers, not seniors, to ensure more interaction and involvement.

Both the observer and participants in the second iteration (see Chapter 6) asserted that, to ensure effectiveness and to reach the desired outcomes, the course should be administered to younger audience (i.e. fresh, sophomore, and junior student teachers). Those have fewer academic pressures and obligations than the seniors, and therefore, are likely to be more interactive while learning this course.

Moreover, Web-based new literacies need to be integrated into the target education programme at an earlier stage so that student teachers make the best use of them from the beginning. Most participants reported that they should have studied this course immediately after joining the college. For them, learning these new literacies from the beginning could have improved their language proficiency by enabling them to employ many Web-based facilities and resources for language learning purposes.

Design principle 10: English should be the medium of instruction and the language of communication among student teachers both face-to-face and online, if language proficiency is the target.

In the second iteration, most participants reported that their English language was improving, attributing this to the fact that instruction and all interactions were in English. This is relevant here because I assume that expanding student teachers' language-related literacy practices through indulging them more in the target language would improve their language proficiency.

English for them is a foreign language that they need to practise through using it for authentic purposes. Therefore, when English is the medium of instruction, they start to think and build their schemata in English, and consequently use it for many communicative purposes.

Design Principle 11: Each lesson should start with a warm-up technique that introduces the topic in an attractive and innovative way that relates the Web and the English language to current events and everyday issues.

Results indicated that innovative warm-up techniques motivated and engaged participants during the lesson. Examples of these techniques include: (1) relating the Web and English to everyday-life issues or some recent world events; (2) asking a student teacher to introduce something new that s/he has recently learned; (3) introducing an interesting link or website; (4) narrating a personal experience with the Web relevant to the topic of the lesson; (5) using YouTube to present a funny English clip; (6) introducing an official ELL website; and (7) introducing a new English idiomatic expression or a new Web-based term.

Design Principle 12: The lessons should reflect a gradual transition from controlled activities to collaborative/cooperative activities that involve pair work and group work, ending with some online independent tasks.

Both the observer and participants in the second iteration noticed the gradual transition from controlled activities to collaborative/cooperative activities mediated by the Web, and finally to freer ones considering this to be a good practice. In socio-cultural terms, it helped with scaffolding participants while learning new ideas and doing new literacy practices. Further, student teachers need to start with those familiar controlled activities that address the knowledge aspect in the course (i.e. knowing about the topic), and thus give a theoretical background that helps with further tasks, before proceeding into other types of activities in the lesson. The controlled activity might be an online reading task

that involves a pre-reading question based on a text on the class Wiki. The reading text should include hyperlinks so that student teachers feel the interactive features of the online text.

Collaborative/cooperative tasks that involve pair work, and then group work, should follow. These activities should reflect the social nature of language learning and the shared reality of knowledge that should be constructed collaboratively.

Independent activities at the end (to be done in the lab or at home) should follow. These activities should be free in the sense that few guidelines and/or directions are given to the student teachers, who work online at their own convenience. They should engage student teachers in reflection on learned ideas and personal constructivist learning.

Design Principle 13: Along with the normal course, additional support sessions should be held on an ad-hoc basis to address any technical problems and/or concerns.

Participants reported the usefulness of the three support sessions held to resolve some difficulties encountered in the blended course. Student teachers can include in their feedback reports any problems and/or difficulties interfering with their learning. The course instructor, in turn, should compile the shared problems and/or difficulties and allocate support sessions accordingly. These sessions should be characterised by being relaxing, informal, and flexible so that student teachers can achieve the maximum benefit. Besides, student teachers' personal needs, individual differences, and learning styles should be considered. A technical expert might be invited to help with any specialised or advanced technical issues raised by learners. Attending these sessions should not be obligatory, but the topics should be identified in advance.

Design Principle 14: During collaborative/cooperative group activities, student teachers should be re-grouped based on their levels of expertise with certain topics and/or facilities to enable scaffolding to occur.

This was a useful practice in the second iteration as it created heterogeneous groups with varied levels of expertise, and thus enabled student teachers to exchange ideas and support each other while performing the group-based tasks. This way, much of the instructor's effort and time is saved, and scaffolding as a socio-cultural process is realised through social practices and activities like peer teaching, modelling, bridging, and contextualising (Walqui, 2006). It is worth mentioning that in a Web-mediated pre-service language teacher-education context, it is not necessary that scaffolding is done

by the instructor; more capable and/or knowledgeable peers under the instructor's guidance can support other less capable ones until they master the target Web-based new literacy skills (Walqui, 2006; Galguera & Nicholson, 2010).

Design Principle 15: The online presence of the instructor during the independent online mode should exist as an essential instructional practice during the course administration.

Results of the second iteration (see Chapter 6) indicated that the online presence of the instructor was very effective because it provided support, offered immediate feedback, and led to more use of English for authentic purposes. Generally, this online presence can take many forms, such as: (1) moderating the e-group so that e-mails can be circulated among group members in time; (2) chatting with student teachers online, and thus employing synchronous communication for providing direct guidance and support on an individual basis; (3) contributing to the class Wiki, Blog, and e-group to initiate subsequent contributions and threaded discussions; (4) replying to student teachers' e-mails and commenting on their contributions to promote further online dialogue in English; (5) monitoring student teachers' contributions to ensure their being on the right path while doing the assignment tasks.

7.2.4 Language learning models and activities

Design Principle 16: Under a dialogic, socio-constructivist pedagogy, along with the individual/reflective activities, cooperative/collaborative and enquiry-based language learning activities should be used to enable learners to collaboratively develop their language proficiency.

Many participants expressed their admiration of the collaborative/cooperative activities that enabled them to share knowledge and learn from each other. They indicated that these activities that took many forms like working in groups of two or more to cooperatively search for solutions or create a product, helped them to improve their English language proficiency. They could also be face-to-face or online supported by some Web-based facilities such as e-group, class Blog, and class Wiki to foster dialogues among learners, and thus, in Wegerif's (2007) terms, allow for meaning negotiation.

Online collaborative learning as a variation of collaborative learning was sometimes useful as a flexible solution during the two iterations. In this context, the Web becomes a tool that can create and support language learning allowing learners in different locations to work in virtual groups. This form was significantly effective in the second iteration as the same group members could continue the task online despite being physically separated.

Enquiry-based learning as a direct application of socio-constructivism (Bruner, 1986) should be employed in future courses to involve learners more in Web-mediated activities. Eagleton and Dobler (2007) perceive it as a curricular approach that is highly congruent with learning on the Web; it can be used as a powerful method through which students discover new information by themselves while engaging in active dialogues.

Design Principle 17: Towards the end of the course, constructivist enquiry-based learning models/activities such as WebQuest and QUEST should be employed to engage student teachers in complicated and advanced language learning tasks that require using multiple Web-based facilities and resources.

In his field notes, the observer suggested improving the course by including more advanced and complicated learning tasks that stimulate more of participants' thinking abilities. Some Web-based models should be employed to utilise the Web-based facilities and resources that participants have already integrated in previous lessons to accomplish specific language learning goals. This way, they can choose freely their favourite facilities and/or resources to exploit for realistic language learning purposes.

These models should be used towards the end of the course after student teachers have integrated some new literacies and facilities, and thus have formed on a reasonable background that qualifies them to work efficiently. Reviewing both literature and empirical data, two models appropriate for this purpose were identified: the WebQuest model that was originally developed by Bernie Dodge in 1995 (Dodge, 2007), and a more recent one, 'the QUEST Model of Internet Inquiry', proposed by Eagleton and Dobler (2007: pp51-250).

Using these models might be useful to enable participants to experiment with many Web-based facilities while accomplishing a specific learning goal. The WebQuest model is a socio-constructivist learning approach defined as "an inquiry-oriented activity in which some or all of the information that learners interact with comes from

resources on the Internet" (Dodge, 1997); thus the Web becomes the main tool for locating information to achieve a certain objective (Young & Wilson, 2002) towards which learners orient their activities. WebQuests can take a variety of forms, from a task lasting a few hours to a one taking few weeks or even months (Clarke, 2004: p113). What distinguishes a WebQuest is that with the proper guidance and scaffolding, students can accomplish through it far more actual learning than in traditional transmission-of-knowledge situations that make them feel bored (Benz, 2001). Besides, it is a flexible model open to refinement resulting in more open and flexible formats by researchers (March 2000). Thus, it can help with opening up the dialogic spaces referred to by Wegerif (2007, 2009).

Some interviewees (see Chapter 4) reported using WebQuest for teaching and study purposes, showing how useful it was. One of them used it to develop his student teachers' essay writing skills reporting how they became more active and creative while using it. Another participant narrated how using WebQuest made a difference for her and her colleagues when they were directed to use it in a post-graduate language course. They felt that the learning experience was meaningful and enjoyable.

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 five main sections (Dudenev, 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.

Dudeny (2003) justifies using WebQuests in the language classroom arguing that because they are mostly group activities, WebQuests may foster communication and knowledge sharing as two components of language learning. In addition, they can be used simply as a linguistic tool, but can also be inter-disciplinary. This adds a realistic sense to them and provides greater motivation leading to greater concentration and a real interest in task achievement. The WebQuest model was investigated by many studies (e.g., Gaskill et al, 2006; Ikpeze & Boyd, 2007; Mekheimer, 2005) which placed it as ideal for teaching students how to use the Web effectively and access resources to answer specific questions or solve problems. Empirically, tasks based on the model helped students to improve their learning and motivation.

The QUEST Model of Internet Inquiry (Eagleton & Dobler, 2007) is a similar model composed of five stages:

1. *Questioning*. It sets the scene for inquiry entailing two guiding questions: "What do I want to know?" and "What is my plan?" It includes theme selection, focus

areas, research questions (which must be researchable and of an appropriate scope), audience, purpose, and project planning.

2. *Understanding resources.* The key question guiding this stage is "How will I find the answers to my questions?" Identifying and utilising digital resources for enquiry need an understanding of the strategies of effectively locating information on the Web and an ability to match resources with research questions.
3. *Evaluating.* The guiding question here is "Is this information true?" This requires a set of critical literacy skills to compare and contrast information available online.
4. *Synthesising.* The guiding question here is "What does this mean?" Throughout the enquiry process, synthesis is necessary for readers to understand information gathered from a variety of resources, including texts, graphics, and multimedia.
5. *Transforming.* The key question here is "What will I do with it?" Since many students struggle with transforming information into knowledge, instruction and scaffolding should be provided.

Both models, as I think, are similar and useful. However, there are slight differences between them. For example, while the WebQuest model requires using any information resources, whether Web-based or not, the QUEST model focuses on Web-based resources. Another difference is that in the WebQuest model, the teacher gives learners in advance the main resources and websites that they should refer to in order to solve the problem or do the task, while in the QUEST model learners are required to make their own plans and use any Web-based resources. A third difference is that, unlike the WebQuest model, the QUEST model is directed more towards online reading and the critical literacies necessary for managing information online. Nevertheless, both models are applicable and liable to be adjusted according to many factors such as schedule, time, and teaching/learning conditions. Hence, future experimental studies are needed for testing how these two models (and also other models) can work within language learning contexts.

7.2.5 Web-based facilities as online spaces for language learning and practice

Design principle 18: A class Wiki is needed as an online platform for delivering the course, and as an online space where student teachers can practise online collaborative writing in English.

Literature indicates that a class Wiki can act as a platform for administering a language or literacy course that involves Web-mediated instructional components (e.g., Erben et al, 2009; Richardson, 2009). Being a major component of Web 2.0 technologies that have recently fostered social networking and collaborative construction of knowledge (Parker & Chao, 2007), Wikis can afford many language learning possibilities, especially as far as language communication, knowledge construction, and collaborative writing are concerned. Thus, the networked, flexible, easy, and user-editable environment enabled by Wikis facilitate new modes of composition that may challenge the traditional methods of teaching writing (Lundin, 2008).

The observer in the second iteration (see Chapter 6) highlighted the double role of the class Wiki as both a platform for administering the blended course (see: <http://assiuttefl.wikispaces.com/>), and as an online space for practising collaborative writing. Also, many participants reported enjoying the process of accessing the whole course through one Web-based link, and how this Wiki helped them to collaboratively write some accounts in English relevant to their language courses.

Many new features associated with Web 2.0 technologies facilitated for me the process of creating a class Wiki to hold the course, such as: (1) easiness of creating and editing links and new pages; (2) flexibility of linking pages to other internal and external ones; and (3) smoothness of organising and presenting course topics. On this Wiki, I could add important accessible contents that participants had to refer to, the most important of which was the language-learning resources page (see: <http://assiuttefl.wikispaces.com/English+Language+Learning+Resources>) that included direct links to useful resources (e.g., dictionaries, encyclopaedias, and official language learning websites and journals). The page was linked to all other Wiki pages so that participants could use it when encountering any language difficulties while reading. Most participants reported their admiration of the idea of creating this page on the class Wiki stating that they could utilise it in studying other courses.

Design Principle 19: There should be a class e-group to allow for asynchronous Web-mediated communication in English, and for exchanging ideas and sharing materials online.

Throughout the previous iterations, the existence of an e-group (http://groups.yahoo.com/group/searching_for_identity/) was effective for many reasons: (1) The e-group resolved a sensitive cultural issue in the Upper-Egyptian context regarding communication between male and female participants by enabling both to communicate with each other on the public space; (2) it enabled participants to upload many useful files related to ELL issues; (3) it allowed for asynchronous, Web-mediated communication that fostered reflection and exchanging ideas based on each member's convenience; and (4) it functioned as a record for all the activities in the group.

Therefore, using an e-group should continue in future courses with similar orientations. After all, each Web-based facility or tool, as some interviewees stated (see Chapter 4), has its own features that make it useful in a way or another. This implies that e-group should exist along with other Web-based facilities to serve specific purposes. Guided by their instructor, student teachers can decide when and how to use it as well as the best ways of making it useful and effective.

Design principle 20: There should be a class Blog to foster self-expression and connective writing in English and enable student teachers to continue dialogue on new learned topics online.

In both iterations, the class Blog (<http://assitutefl.blogspot.com/>) was useful and effective as a multi-purpose tool that allowed for reflection, self-expression, and online publication of ideas, opinions, and thoughts. From a language-learning standpoint, the Blog allowed for connective writing in the sense that the person was writing in relation (or in response) to other written accounts, while keeping audience in mind. Thus, participants were writing to contribute, initiate discussion, give feedback, develop an argument, and/or simply to comment on others' posts, and hence foster connective writing. This way, writing is no longer an isolated endeavour that one does to himself/herself or from his/her own part, and which might be communicated to others, and once communicated, immediate response or feedback is unlikely. Instead, it has become an online practice that extends beyond stable linguistic features and isolated practices, towards negotiability and connectivity as facilitated by Blogs on which

publishing accounts takes only few seconds. In this sense, Blogs act as online spaces for student teachers through which they can extend language dialogue after studying any new topics that should continue online through new posts and/or comments.

Many student teachers were so familiar with Blogs that they had already created their own to use as online diaries to vent thoughts and reflections in both Arabic and English. This natural tendency towards using Blogs for personal purposes can be utilised in future courses, but with creating one class Blog for all learners to focus their contributions and efforts in one place. Thus, their accumulative contributions can facilitate any assessment or evaluation processes. Student teachers can create their own personal Blogs since the process has become Web-based and easily manageable online (see: <https://www.blogger.com/start>), but these personal Blogs should be linked with the main class Blog.

Design principle 21: There should be online diaries (e.g., Yahoo! Notepad) to act as a reflective tool for student teachers to record their resources, reflections, and feedback reports, and practise writing in English.

Guiding student teachers into using online diaries in the form of a *Yahoo! Notepad* was, as results indicated, one of the most successful ideas in the blended course. Most participants regarded it as the most useful Web-based facility they knew because they could employ it to replace Word files since they could access their *Yahoo! Notepad* at anytime from anywhere. They also reported that the notepad served many language learning purposes, such as saving important language learning websites, and easily writing, editing, and updating their notes. In the same way as it helped as a data collection tool in the form of a research diary in the study in general (See Appendix C), this notepad helped participants in the second iteration to reflect on their learning, record useful data, and organise their resources.

Generally, it is important to have online diaries as a reflective tool in future administrations to provide student teachers with private online spaces to: (1) write any personal reflections or private ideas that they do not want to disclose to others and access them from anywhere at anytime; (2) practise online writing in English where it is easy to flexibly manage and update written contents; (3) record their feedback and reflections on their language learning experiences; (4) save important textual language-learning resources, and modify or adapt them according to their specific needs and/or purposes; (5) create personal documentary notes addressing many topics to organise

according to subject under many folders; and (6) easily locate previously-recorded material through the 'search' function within the notepad.

7.3 Implications for EFL Curriculum Design in Teacher Education

As stated above, this second part of the design framework is devoted to addressing the fourth question of the study, "What are the implications of the suggested design principles for EFL curriculum design in the target context of AUCOE?" The emerging implications revolve around the following: products, curriculum design approach, difficulties and challenges, and suggestions for the context.

7.3.1 Products

Language curriculum design, as Graves (2008) and Pinar (2003) argue, is a dynamic, complex process that should be congruent with postmodern, socio-cultural, and emergent views of curriculum and education reflecting a mutual, interactive relationship between curriculum theories and realistic classroom practices. This recognition of the role of the state-of-the-art knowledge and theories on one hand, and the contextual, realistic practices on the other, is congruent with the core of the DBR methodology. The relationship becomes even stronger between the two fields when DBR is approached from a curriculum design perspective, a case which van den Akker (2010) refers to as 'curriculum design research', that seeks to achieve consistency between the intended curriculum, the implemented curriculum, and the attained curriculum (McKenney et al, 2006) (see also Chapter 1).

As far as curriculum design is concerned, using a DBR methodology should result in three types of outcomes: design principles, curricular products, and professional development (McKenney et al, 2006; van den Akker, 2003, 2010). All are important and relevant to EFL curriculum design within a teacher education context that needs: (1) design principles to inform future curriculum design; (2) curricular products as examples, formats, and/or representations of how an innovation can be integrated into the target context; and (3) professional development as a main target that any teacher education programme should seek for all candidates enrolled in the programme. I can argue that in this study, the three outcomes (i.e. design principles, curricular products, and professional development) were realised as illustrated in Figure 13 below. As the arrows in the figure indicate, there is a developmental, circular relationship between the

three products. Thus, the preliminary design principles guided the intervention, which is represented by two cycles, through which the preliminary design principles were developed, revised, and expanded. The two cycles of the study, as Figure 13 below indicates, are represented by two intersecting circles. Further, the double-ended arrow that vertically links between both design principles and curricular products indicate the circular, non-linear relationship between both since each interactively leads to the other. The main two curricular products resulting from the study (as the two diagonal single arrows indicate) are represented in: (1) tasks (resulting from the first cycle), and (2) blended course (resulting from the second cycle). The blended course in turn involves (as the arrows indicate) three minor curricular products: a class Wiki, a class Blog, and an e-group, all of which will be discussed below. Student teachers' interactions with (and use of) those curricular products should eventually lead to (as the long vertical single arrow in Figure 13 indicates) to professional development. In the section below, I will discuss in detail all those issues and components.

a) Design principles

After two iterations, a final design framework including some design principles was generated reflecting a provisional, prototyping process through which the preliminary design principles that guided the first iteration developed into more comprehensive ones. These principles are not meant to be just internal guidelines in the design study, nor are they meant to be merely end products in themselves. Instead, they should function as guidelines to be used by EFL teacher educators in the future, and hence guide the EFL curriculum design process at the institutional level whenever integrating Web-based new literacies into the Egyptian context, with specific reference to AUCOE, is the target. To accomplish this goal, they should inform the design of EFL courses for the target context towards expanding EFL student teachers' language-related literacy practices.

b) Curricular products

The DBR methodology followed here involved producing some curricular products in the form of interventional tasks that guided a CoP design in the first iteration (see Appendix J), and then a blended course in the second iteration (see Appendix M). Though these two curricular products were intended as interventions to test the suggested design principles, they can stand as products that practitioners (i.e. EFL teacher educators) might review to understand the prototyping process and its implications for EFL curriculum design. Moreover, they can use them as practical

examples to guide their teaching practices. Thus, practitioners should be briefed about the strengths and weaknesses of both products and how the final design framework can help them to create their own products that they might experiment with, for example, within further action research projects.

The class Wiki (<http://assiuttefl.wikispaces.com/>) as a platform for the blended course is an appropriate example of a minor curricular product. It represents how an online Wiki accessible by anyone can be employed to organise the learning materials and useful readings, and guide learners into learning. It includes many useful links, both internally and externally, that make learning easier and more flexible.

c) Professional development

From a methodological standpoint, this DBR methodology is participatory in nature as it involved some participants (i.e. EFL student teachers and teacher educators) in both the preliminary phase and the prototyping phase. Those participants were exposed to interviews, questionnaires, and e-mail communication. Some EFL student teachers, in particular, were involved in a CoP that, based on their feedback reports, helped them to improve their English language proficiency and learn many lifelong learning skills that should benefit them in their future careers. The same student teachers were also exposed to a blended course that involved them in dialogic, socio-cultural learning activities that helped them to acquire many Web-based new literacies and employ them within language learning contexts (see also Chapter 6). These experiences should have helped participants to develop themselves professionally as researchers, language learners, teacher educators, and prospective teachers of English. Thus, a professional development component was evident as an indirect outcome of the prototyping process.

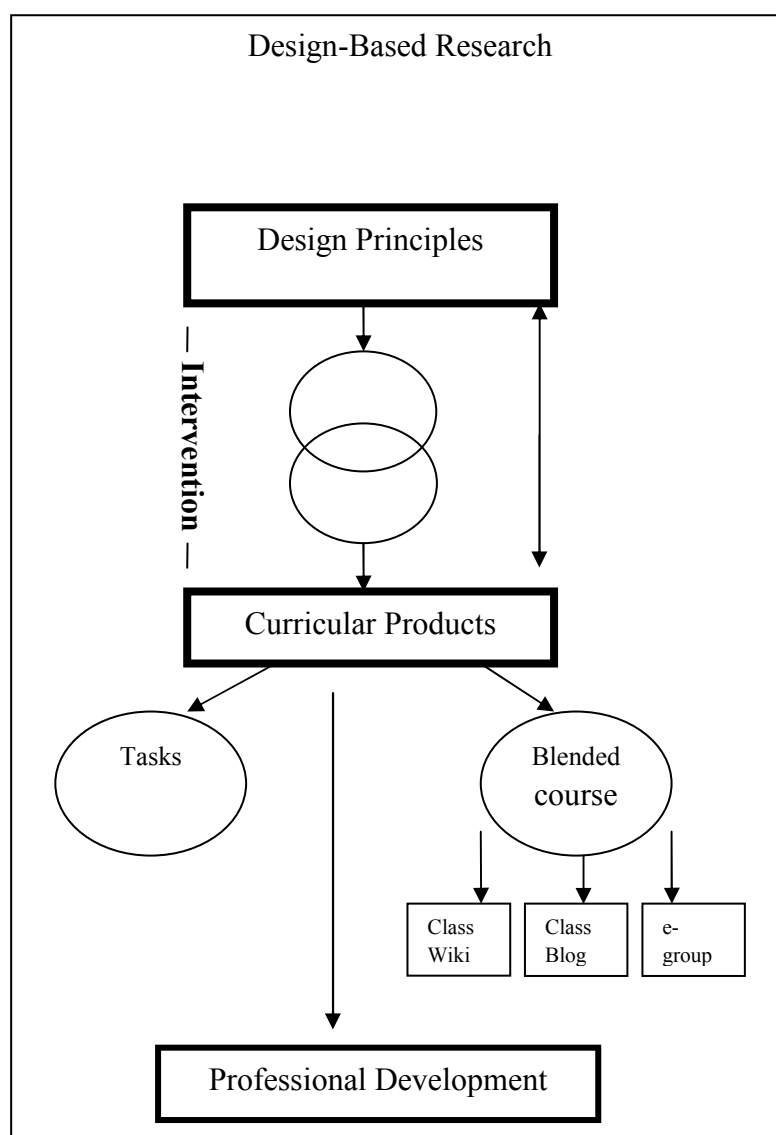


Figure 13: Illustration of the DBR outcomes in the study

7.3.2 Curriculum enactment as a curriculum design approach

As shown in Chapter 3, there are many approaches to language curriculum design. One of these is the ‘process’ approach that recognises the necessity of conducting designing, revising, implementing, and evaluating processes for the language courses or programmes to develop and/or improve them (Hall & Hewings, 2001; Richards, 2001). Consistent with this approach is the ‘enactment’ perspective, which has become increasingly widespread (Ball & Cohen, 1996; Barab & Leuhmann, 2003; McKenney et al, 2006). Graves (2008) and Snyder et al (1992) advocate a ‘curriculum enactment’ approach to language curriculum design and development according to which the process draws on real classroom practices. This approach is perceived as a joint collaborative process between both teacher and learners, and therefore, the real

educational activities and teaching/learning processes should be the basis to inform the curriculum design process.

From this ‘enactment’ perspective, a language curriculum or course does not exist before it is enacted, and hence, the main focus should be on how curriculum is shaped through the evolving constructs of teacher and students (Snyder et al, 1992). Therefore, in a sense, this approach is compatible with the DBR methodology, since real teaching/learning practices inside the classroom are the starting point, and experimenting with curricular products dynamically in the context is the main practice. If curriculum design is the focus, I believe that the whole DBR methodology should be approached from a curriculum enactment perspective that involves experimenting with some courses and/or programmes in reality to improve the curriculum. After all, DBR should serve design purposes, and thus, should inform the long-term curriculum design process that should not be solely guided by prescriptions or guidelines proposed by policy makers from an upper level and/or in a traditional hierarchical, top-down fashion.

The study proposes that, to expand language-related literacy practices for EFL student teachers, their curricula should be redesigned to encompass Web-based new literacies, while considering learners’ needs, interests, and social context. This calls for a revisiting of EFL curricula in teacher education to investigate the possible procedures to follow in order to improve them. From a ‘curriculum design research’ perspective (McKenney et al, 2006; van den Akker 2003, 2010), the EFL curriculum design process in pre-service teacher education should have a ‘curriculum enactment’ orientation through a prototyping process. Improving curriculum design should start from the real literacy practices and language needs of EFL student teachers at any specific teacher education institution and the rapidly changing ICTs and the possibilities they can provide for teacher education (see also Leu et al, 2004), and thus combine both the internal/contextual needs and the global, world-wide forces influencing education in general.

EFL curriculum design in teacher education programmes, especially at AUCOE, needs both the enactment approach and the DBR methodology to improve the taught curricula since the curriculum design process in this context still relies on pre-determined criteria that disregard the real context, student teachers’ needs, and the new components and innovations that language curricula should address.

7.3.3 Difficulties and challenges

Based on interviewees' accounts (see Chapter 4) and the two iterations of the study, I argue that, to some extent, it is feasible at both theoretical and practical levels to integrate Web-based new literacies into the pre-service EFL teacher education curricula in Egypt. The process becomes possible once some difficulties and/or challenges are overcome, or at least alleviated as much as possible, to create an appropriate learning/teaching context. These difficulties and/or challenges may be represented in:

- a) administrative challenges, bureaucracy, and resistance to change;
- b) problems of equipment and technical support;
- c) lack of training in basic computer and Internet skills;
- d) negative attitudes towards the Internet and new technologies in general;
- e) dominance of classical educational ideologies, teaching/learning methods, and evaluation procedures;
- f) problems of access, costs, and connection speed;
- g) the need to update the TEFL programme itself;
- h) lack of awareness of the Web-mediated learning culture;
- i) the increasing number of students enrolled in the pre-service EFL teacher education programmes;
- j) cultural aspects and concerns while using the Web;
- k) lack of coordination among staff members; and
- l) the overloaded timetables and teaching obligations of EFL teacher educators.

As much as possible, I tried to address some of these difficulties in the above design principles. However, some of them, especially those related to administrative and logistic issues, represent persistent problems in the Egyptian system in general. To a greater extent than many other Egyptian universities, the current circumstances in AUCOE may encourage such an integration to take place (see Chapter 1). For example, most lecturing rooms are equipped with computers and Data Show. However, technical preparation for student teachers in using Web-based facilities is needed. As a way to resolve logistic and administrative difficulties, Web-based new literacies may be integrated into this context in the form of a minor course that should be attached with or integrated into the TESOL/TEFL methodology course especially because it is the most closely relevant course in this respect. It also should create links between the

TESOL/TEFL methodology course and the educational technology course. This technique may resolve the logistic difficulties in the future.

7.3.4 Suggestions for language curriculum design at AUCOE

Some modern trends in curriculum design and development imply that a curriculum is no longer perceived as a final, stable product prescribed from above through a top-down process; instead, it is a negotiated product that needs the viewpoints of both teachers and learners. Learners, in particular, need avenues such as proper evaluation and needs analysis, to express their viewpoints on the curriculum. These viewpoints that should stem from classroom practices in the field mark a bottom-up process that should complement and improve the top-down process (Boomer, 1991; Graves, 2008). In addition, commitment to developing and improving the studied language curricula should exist in both EFL student teachers and their educators. They should understand that their voices are extremely important for curricula improvement.

The prototyping process followed here which involved two iterations, was an example of experimenting with a curricular product in its real context to see how it works to present some principles for future curriculum design oriented towards EFL student teachers and their literacy practices. The DBR process in general, and the prototyping process in particular was intended to give a clear model for EFL curriculum designers that could be employed in the Egyptian educational context.

This model is represented in Figure 14 below and includes the following procedures: (1) Starting from both the specific, realistic needs of EFL student teachers and the global innovations and learning trends; (2) generating a preliminary design framework based on both literature and empirical data; (3) designing a curricular product guided by the proposed framework; (4) experimenting with the product in the real context; (5) modifying the design framework based on the results of the initial experimentation by formulating new design principles; (6) designing a new version of the curricular product based on the new design framework; (7) experimenting with the new curricular product in the real context to see how it works; and (8) modifying the design framework according to the new results, and designing a new curricular product and repeating the same cycles if necessary till a satisfactory product is reached.

Returning to the problem of the discrepancies between the intended curriculum, the implemented curriculum, and attained curriculum (see Chapter 1), this model is intended to fill this gap. The practical context and those situated within it should be in

the forefront of curriculum design and enactment (van den Akker, 2010). Therefore, student teachers' realistic needs, literacy practices, and proficiency levels (the attained curriculum) should be fed back into the cycle of desired learning goals envisioned at the design level carried out by policy makers and/or EFL teacher educators (intended curriculum). When improved, the curriculum taught to student teachers (implemented curriculum) should form a compromise between both levels so that it becomes appropriate and realistic in curriculum design terms. This implies that the curriculum design process needs to be perceived, as van den Akker (2010) argues, as a non-linear, cyclic process that goes through many cycles of iteration and experimentation in which a preliminary product is checked against the target context until a satisfactory product is realised (see also Figure 14).

In the curriculum design model proposed by the study, which is illustrated by Figure 14 below, the main sources that inform the preliminary design framework are represented in: (1) The global trends of learning/teaching; (2) the dominant ICTs and innovations; and (3) the specific needs of learners within the target context. Along with these sources, there are two other sources (as the two single horizontal arrows in Figure 14 below indicate) that directly inform this preliminary design framework: literature review and empirical data derived from a pilot study (see also Chapter 1).

The preliminary design framework (as the single vertical arrow indicates) inform the design of specific curricular products as means through which some design principles are to be tested in the target context through a short intervention. This intervention (as the single vertical arrow indicates) results in a revised framework that necessitates designing a new curricular product to meet student teachers' needs and resolve the weaknesses observed in the previous design. The new curricular product (as the arrows indicate) should inform a new design framework that starts (as the long, single arrow pointing up indicates) a new cycle of intervention. This prototyping process should repeat continuously until satisfactory design principles are reached; subsequently, new curricular products are continuously produced and developed (see Figure 14 below).

As indicated by some participants in the two iterations, the external observer, and some interviewees in the preliminary stage, from a curriculum design standpoint and as far as Web-based new literacies are concerned, the problem is that the current EFL curricula in the Egyptian pre-service EFL teacher education programmes in general and in AUOE in particular, do not create links between the TESOL/TEFL methodology

course and the educational technology course. EFL student teachers study both as separate courses delivered by different instructors who might have diverse backgrounds. In addition, although the educational technology course includes sections on relating some applications to language learning contexts, these sections are so peripheral and marginalised that student teachers rarely address them seriously.

Even worse, a serious problem in the educational technology course itself is that it is not sufficiently up-to-date to address the Web-based new literacies that any technology course should address in this ICTs-dominated age. Reviewing the contents of these courses in AUCOE reveals that they are more concerned with older educational technologies and apparatus such as Slide Projectors, Film-Strip projectors, and Over-head Projectors, than with computers and Internet applications. In many internal meetings, seminars, and conferences held at AUCOE, there has been a persistent call to update the educational technology course, but up till now, no modifications have been made.

A similar problem exists with the TESOL/TEFL methodology course. Reviewing the course design criteria and guidelines in AUCOE, I noticed that at no stage does the course address literacy and language learning from the new perspectives compatible with the dominant ICTs; but rather the contents are restricted to traditional and paper-based teaching/learning aids, such as blackboard, flash cards, drawings, and cassette recorders.

Further, the course does not address the main language skills (i.e. listening, speaking, reading, writing, and communication) from a new literacy perspective that recognises the existence of online reading, online composition, computer-mediated communication (CMC), and collaborative writing.

My suggested blended course should have the double function of updating the TESOL/TEFL methodology course, and creating the missing links with the educational technology course. It does not make sense that student teachers study many technological ideas with no direct link to language learning. As part of the TESOL/TEFL methodology course, this blended course should go simultaneously with the course itself. This applies to the present context in which EFL student teachers study the TESOL/TEFL methodology course and the educational technology course separately.

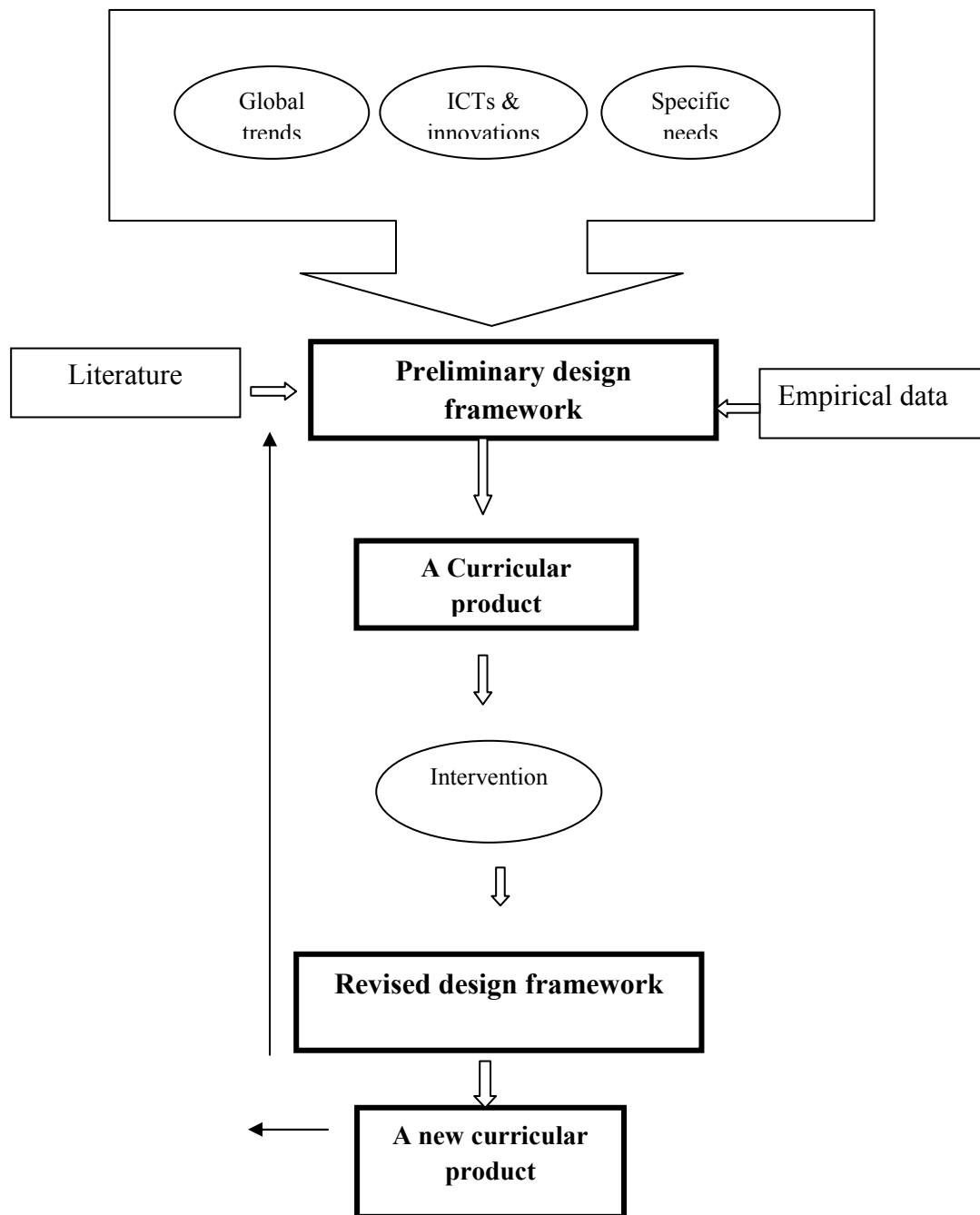


Figure 14: The curriculum design model proposed by the study

7.4 Conclusion

In this chapter, I have presented the final design framework based on the prototyping stage of the design study, followed by its implications for the EFL curriculum design process at AUCOE, and thereby answered the third and fourth questions of the study. This chapter represents the culmination of the assessment/reflective stage as the final

phase of the design study, and the main contribution of the study in general. Thus, it should be used as a guideline by future researchers to test it through further experimental or action research studies, and thus provide further design frameworks.

CHAPTER EIGHT: CONCLUSION

This chapter presents implications of the study, together with specific recommendations for further research in the area. It also includes a section outlining the main contributions to methodology, knowledge, and practice as well as a mention of the limitations. Finally, a number of final reflective remarks are presented to conclude the whole study.

8.1 Implications of the Study

The study dealt with a number of aspects related to literacy and TESOL/TEFL as it addressed Web-based new literacies in a language learning context, the Web as a technological innovation and a multi-functional tool that can serve many purposes, pre-service EFL teacher education in Egypt with specific reference to AUCOE as a context, and EFL curriculum design. Based on the results of the two iterations of the study as well as the final design framework, I can argue that the process of integrating Web-based new literacies into the Egyptian context is feasible, and that pre-service EFL teacher education in Egypt is an ideal context for this integration. EFL student teachers are prospective teachers of English whose literacy practices will influence their prospective students. Expanding their language-related literacy practices is a good investment to enable them to face future challenges in schools.

The EFL student teachers who participated in the two iterations were well aware of this fact, and were keen to involve themselves in new language literacy practices in an academic context. They reported that they needed to employ the affordances of the Web for language learning purposes within their academic study. The interventions, in this sense, were a means of involving them gradually in some new literacy practices that drew on familiar informal practices (e.g., e-mail communication, blogging, and using social networking tools) that they had been doing outside their academic formal study.

To make this integration possible, I drew on student teachers' pragmatic orientation to improve their English and get high scores in the academic courses they were studying. This has an important implication to the Egyptian context: to integrate an innovation there, it is necessary to draw on learners' pragmatic orientations by linking the new innovation to their already existing academic courses. In other words, learners' cultural

backgrounds, attitudes, realistic needs, and informal practices should be taken into account to make this integration possible.

From a technological perspective, creating links with other courses was feasible since the Web-based facilities employed in this process could be used in a variety of ways within any academic course in any context. More specifically, these facilities, as concluded from the two iterations, can be used within any language courses such as TESOL/TEFL Methodology, Novel, Drama, Linguistics, Poetry, and Essay Writing & Reading Comprehension to give student teachers practical examples on how to use such facilities for realistic academic purposes.

For example, on the class Blog, student teachers can discuss a Shakespearean tragedy, or, based on a Google search, write down their understanding of the various English language teaching approaches and methods as part of the TESOL/TEFL methodology course; through an e-group, they can exchange some resources or articles on a novel like *Great Expectations*; on a class Wiki, they can collaboratively write their critical comments on a poem, and edit each other's accounts; on a social bookmarking website like delicious.com, they can share some useful language learning websites that include, for example, useful accounts on some grammatical topics; and using Google, they can locate useful resources that might give them insight into the different kinds of essays and some tips for writing a good English essay.

The Web was the main technology and learning resource in the study. It was placed in a unique position as a multi-purpose tool that can serve many functions: as a subject of research, as a means through which research was conducted, and as a tool or innovation that mediated learning in the two iterations of the study.

The implication here is that the technology itself as a technical reality should not be the main concern (see also Chambers & Bax, 2006), but the main focus should be on the affordances made possible by it. In my study, I employed the Web as a means of communication to resolve distance and time constraints. Some traditional data collection methods or tools were used, but were mediated by the Web. This saved much time and effort enabling the participants to handle the interviews and questionnaires at their convenience.

This has an implication for research methodologies in general: The available technological facilities should be employed in the research process in the best way

possible to make it much more feasible. In my case, had not it been for the Web, I would have been obliged to visit Egypt twice at least at my own expense to conduct my design study. This was not possible based on the scholarship regulations according to which I was sponsored to visit Egypt only once during the scholarship.

Because of the new DBR paradigm which I employed, and which involved three phases, the Web was extremely important for my study. In the preliminary stage (see Chapter 4), I had to collect data by interviewing some EFL student teachers and teachers educators based in Egypt. I had also to administer a questionnaire to them to contextualise my Web-based new literacies taxonomy and list. The Web, thus, was employed for doing both jobs online instead of going back to Egypt during the preliminary research phase. This, later on, served the prototyping phase by allowing for having a three-month period of face-to-face interaction with participants in Egypt (the second iteration) to implement the blended solution (see Chapter 6) based on the results obtained after implementing the CoP design online (see Chapter 5).

Thus, the Web facilitated the first iteration (the online design) since it was not possible at the beginning of the prototyping phase to meet participants face-to-face. In this design, all the possible affordances of the Web were exploited to make for the absence of physical contact. Participants worked at their own convenience and according to their real abilities. When they faced any difficulties, online tutorials through Web-based chat were conducted to provide support. Though these tutorials did not make for the absence of the face-to-face interactions (see Chapter 5), they were somehow effective at that time.

From a methodological standpoint, this has many implications: (1) The ‘fitness-for-purpose’ principle works well when the research methods, procedures, and technologies are employed to serve the main research objectives, not the other way around; (2) distance and access problems in this age have become less significant as impeding factors, especially as far as data collection is concerned; (3) because of many factors that govern conducting PhD studies, some adaptations can be made to the main research paradigm employed to make it more feasible, provided that these adaptations or revisions do not contradict or counteract the main philosophy of the paradigm.

In the same vein, the study has many implications for language learning pedagogy and TESOL/TEFL. In addition to the traditional teaching methods used in the Egyptian context of EFL teacher education, other methods can be used. These methods are

mainly based on a Web-mediated learning approach, which might take many forms and designs, such as online learning or blended learning. Under this approach, a socio-constructivist learning pedagogy that cares for both the individual aspects of learning and the social, socio-cultural ones can be employed. During the two iterations, most participants reported their dissatisfaction with the language learning methods followed in the college; in contrast, they expressed admiration for the teaching/learning methods followed in the interventions (see Chapter 6). This implies a need for a shift to be made in the Egyptian context from traditional, content-oriented, and exam-focussed methods that foster rote learning and memorisation, to those that foster knowledge construction, meaning negotiation, and subsequently, meaningful learning. The language learning content, thus, should be perceived as a means to an end, not as an end in itself. In other words, the content should not be a final product prescribed from above to be executed to the letter in classrooms; instead, it should act as a means through which learners can foster lifelong learning skills, and which can be vulnerable to continuous changes and adaptations in a dialogic, iterative fashion (see Chapter 7).

From an EFL curriculum design standpoint, the study has many implications since a major impetus for conducting it was to resolve a curriculum design issue in the Egyptian context of pre-service EFL teacher education (see Chapter 1). The persistent problem in the curriculum design process in Egypt in general, as noticed by many researchers (e.g., Abdel Latif, 2009; Gahin, 2001; Ibrahim, 2008), is that it is a top-down process in which the curricula are designed as prescriptions from above in which case teachers are means through which these curricula are implemented in schools. The absence of flexibility, as indicated by those researchers, has led to creating stereotypes of language learners who are less likely to be creative.

In the pre-service EFL teacher education context, this led, as stated in Chapter 1, to a wide gap between the desired curriculum, the implemented curriculum, and the attained curriculum. In this regard, the study was an attempt to generate a design model that involves a curriculum enactment perspective (see Chapter 7). Starting from student teachers' needs, the two iterations represented an experimentation of two curricular products into the context to see how they worked. The two iterations, thus, represented an iterative negotiation of a language curriculum with participants to generate some design principles or guidelines to be further negotiated by EFL teacher educators and future researchers in the field.

An important implication here is that teachers' and learners' voices should be heard in the curriculum design process. Teachers in general and EFL teacher educators in particular, should be given the chance and freedom to choose from among a wide range of teaching methods and activities the ones that are convenient to their learners and to their local contexts. Moreover, they should be allowed to involve their students in the curriculum enactment process.

As I argued in Chapter 7, this does not imply that the curriculum design process in general within the Egyptian context should shift to a totally bottom-up model that starts from the context and the real teaching/learning needs and practices inside it. Instead, it should be conducted as a combination between both top-down and bottom-up models. Such a compromise necessitates using a design-based research methodology to experiment with the proposed curriculum in reality from an enactment perspective. The results, in turn, should be cycled back to policy makers at a higher level in the form of design principles that involve guidelines based on the observed strengths and weaknesses. Policy makers, in turn, should study these principles and/or guidelines and produce modified curricula or syllabi accordingly.

Unlike Egyptian public schools, which must execute the national curricula, there is much more freedom in tertiary education, where changes to the taught curricula can be carried out at an institutional level (i.e. the colleges of education) without direct interference from the government or policy makers. Therefore, EFL teacher educators are free to write their contents in any way, provided that they conform to the main objectives and course specifications suggested for the EFL teacher education programme (AUCOE, 2010). This makes it easy for them to conduct design studies with the aim of enacting their courses, and improve them based on the obtained results.

From an educational technology perspective, the study has many implications, especially as far as computer-assisted language learning (CALL) and Web-mediated language learning (WMLL) are concerned. In Bax's (2000) terms, reaching the 'normalisation' stage of using the Web as part of CALL can be a feasible process after allocating more time and effort. Normalisation refers to a state in which the new technology becomes, like many other tools such as books and pens, an invisible component of the teaching/learning process (see also Bax, 2003; Chambers & Bax, 2006). I do not claim that I reached this stage throughout the study, but I reached some conclusions that might help with integrating the Web as a new technology into the

Egyptian context of EFL teacher education, with specific reference to AUCOE, that might make using it go unnoticed, and thus reach the normalisation stage.

First of all, using the Web should be an indispensable practice in all the language courses, not only the TESOL/TEFL methodology course. Results indicated that the more the student teachers employ the Web to address some realistic needs in the studied courses, the more they are likely to use it on a daily basis for academic purposes. The linkage made with other courses helped participants to discover new possibilities the Web enabled in their context, and therefore, the Web became for them an essential learning resource to draw on for language learning purposes in the future.

Second, because normalisation requires a fuller understanding of the socio-cultural aspects that underlie its operation (Bax, 2003), some focus should be on the local contextual factors that might hinder a full normalisation into the Egyptian context. Based on the results of the two iterations, a number of difficulties were identified, including: technical difficulties; limited access to the lab in the college; lack of personal laptops or home computers; the view of the Web as a luxury rather than as an indispensable part of language learning; and the reliance of paper-based formats for the delivery of other studied courses.

In spite of these negative factors, there were other positive ones that might make the process feasible in the near future: (1) many teacher educators started to ask student teachers to refer to the Web to make some presentations and prepare for some tests; (2) many participants were enrolled in a new experimental course (http://www.iti.gov.eg/eduegypt/edu_egypt.html) that aimed at equipping them with the skills needed in the information society, and which involved integrating the Web as a main resource for information and means of global communication; (3) many student teachers reported that, as a result of my interventions, using the Web became part of their everyday-life activities; (4) access to the Internet has recently started to be cheaper in Egypt with the increasing use of it in different life activities and services.

Third, the normalisation should involve using a scaffolding technique to assist learners at the beginning. In the first iteration, I tried to gradually expose participants to the Web in an academic language learning context by grading the interventional tasks, and by making these tasks emerge naturally from communications and learning events within the group (see Appendix J).

8.2 Contributions

Based on the implications discussed above, the study has many contributions to some aspects as illustrated below:

8.2.1 Contributions to methodology

The goal of this section is to present through an argument on the methodological contributions of the study, an answer to the fifth and last research question: "What are the methodological implications of employing an educational design-based research (DBR) methodology along with some innovative techniques for data collection and analysis, to the Egyptian context of educational enquiry?"

Thus, the methodological contributions emerging from the study are mainly represented in introducing educational DBR into the Egyptian context. In addition, the study presents new arguments and innovations to the field of educational research with specific reference to the Egyptian context. It suggests using DBR as a new paradigm under which many quantitative and qualitative methods can be pragmatically mixed and employed to address specific research objectives. In the following points, I present more details.

a) Introducing DBR into the Egyptian context of educational enquiry

As argued in Chapter 2, the main paradigm dominating the Egyptian context of educational research, especially in the area of curriculum and teaching methodologies, is the positivist paradigm. This study helped with improving this reality by introducing DBR as a new paradigm that aims at improving both theory and educational practice. DBR in this sense can be used as an alternative to the experimental design which has neither produced strong theoretical arguments and rigorous results that link theory to practice (Tohamy, 2009), nor presented principles or guidelines for practitioners to consult when faced with practical problems. Thus, DBR can be a solution to the stagnant state of educational research in Egypt (The World Bank, 2009b; Warschauer, 2003), especially in the curriculum and methodology branch.

b) Generating a revised version of the DBR methodology

My adapted DBR version (see Chapter 2) was mainly guided by Herrington et al's (2007) argument that DBR methodology can be feasible in PhD projects if doctoral students adjust it to suit the context and peculiar conditions imposed by their studies.

The common idea about DBR is that it typically needs many years to be conducted since it involves a long-term prototyping process. This process alone takes years until a satisfactory product (e.g., a design framework or domain theory) is reached.

Methodologically, the main guiding research principle I drew on throughout the whole study was 'fitness for purpose': my research objectives should guide the choice of the paradigm, and consequently, the subsequent methods and/or tools of data collection and analysis. This principle was reinforced by communication with some main figures in the field of DBR. Therefore, I had to adjust the methodology to fit my research objectives, not the other way around.

One of the most outstanding characteristics of DBR is its flexibility (Van den Akker et al, 2006; Wang & Hannafin, 2005). I realised that there is no specific 'one-size-fits-all' format of DBR that must be used by all researchers regardless of their research objectives and/or questions. Instead, the research purposes, objectives, and/or questions should guide the process of how to use DBR. This flexible nature allowed for employing a variety of quantitative and qualitative methods throughout three connected phases, namely the preliminary phase, the prototyping phase, and the assessment/reflective phase (see also Figure 1 in Chapter 2). The prototyping phase in particular was adjusted, especially in terms of length, to the research conditions and constraints (e.g., absence of physical interactions with participants at the beginning, the short stay in Egypt that should not have exceeded 3 months, and the final submission deadline).

Besides, it was impractical to conduct an exhausting, long-term prototyping process as in some previous design studies and large-scale projects (e.g., Brown & Campione, 1994, 1996; Joseph, 2000). Therefore, my interventions were short in time, as I wanted to experiment with the main philosophy of DBR (i.e. the logical sequence of design, implementation, evaluation, and re-design in a cyclical, developmental fashion) rather than with any exhaustive long-term procedures that might take many years to implement in reality. Hence, these short and concise interventions were designed to act as representations of the suggested design principles in reality to test my design framework, and thus reach some final design principles based on the target context.

Further, this version involved the use of some innovative evaluation techniques not familiar within the Egyptian context of educational studies, to test the preliminary design framework in reality, and to modify it accordingly (see Chapters 5 and 6). These

did not involve the traditional pre-post testing techniques commonly used in the Egyptian experimental studies in education that usually aim at providing numerical and statistically significant results with no focus on deeper qualitative analysis. Instead, they were guided by a formative evaluation approach underlying some reflective tools such as online diaries for obtaining feedback reports, triangulated with other objective tools such as external observation and statistical analysis.

Thus, this revised version can be described as original and rigorous for the following reasons: (1) It resulted from an extensive review of DBR literature and some few previous studies that employed DBR in many contexts (e.g., Class, 2009; Hanghøj, 2008); (2) a number of main DBR figures gave their feedback and suggestions on the proposed design through e-mail communication (see Chapter 5); (3) the two iterations conducted in the real Egyptian context to test the proposed design frameworks were quite successful as means for testing how things would work in reality (see Chapters 5 and 6); (4) this version is new to the educational research and DBR knowledge base, and exclusively new to the Egyptian context; in this sense, it can be adapted and used in the future by other PhD researchers (see Figure 1 in Chapter 2).

c) Using triangulation flexibly and innovatively to resolve validity and reliability problems within DBR

One of the key methodological arguments here is that because DBR is a flexible methodology that needs to be more rigorous, triangulation was employed as a technique in the prototyping phase. Feedback reports that were used to evaluate the interventions needed other objective methods, such as external observation and statistical analysis, to reinforce them. The main idea, as Ernest (1994: p24) and Grix (2004) argue, is that this technique overcomes the weaknesses of subjectivity so that the more the methods vary and contrast with each other, the greater the researcher's confidence will be.

In this sense, although the feedback reports were good venues for the participants' voices, they involved weaknesses such as subjectivity, and sometimes, inaccuracy. Observations were used along with these reports to achieve more objectivity. The qualitative data analysis supported by NVivo 8 enabled comparisons to be flexibly made between both methods through thematic coding and analysis processes of the same topics (see Chapters 5 and 6).

d) Employing innovative techniques to serve and enhance the research process

1. Using an online research diary (Yahoo! Notepad) as a reflective tool throughout the whole study

The organisational facilities enabled by *Yahoo! Notepad* helped me to keep an online diary in an ideal, flexible format. This research diary included memos, reminders, readings to be done, future tasks, supervision notes to address, and new studies to include in the literature review. The technology made the diary feasible as it was possible to divide the diary notes into folders, copy the same note into multiple folders, update notes so that they move to the top, and delete or reduce notes. This played an extremely important role in organising and managing the whole research process from the beginning (see also Chapter 4).

2. Using the Web as a data collection tool

Methodologically, what distinguishes this study is that the Web was employed in many ways to serve many purposes: It was employed as a data collection tool to resolve distance problems in the preliminary stage since most participants were based in Egypt; and it was used as a means that mediates learning in the two iterations.

3. Using minor data collection tools such as a screening questionnaire to serve specific purposes.

A screening questionnaire (see Appendix H) was used to identify eligible participants from the whole group of senior EFL student teachers. This questionnaire differed from the first questionnaire that included a list of Web-based new literacies and which was administered online as a confirmatory procedure; the main purpose was to contextualise the list within the Egyptian context of teacher education to get a final list based on the importance the participants attached to these literacies. It seemed for me that the first questionnaire was more important than the screening questionnaire, which only served a purposive sampling purpose within my design study.

8.2.2 Contributions to Knowledge

a) Generating a list of Web-based new literacies in the TESOL field

Although a vast number of studies have been conducted on using Web-based technologies within ELL contexts, none of them attempted to generate any taxonomies or lists that might ground future research in the area. Thus, providing a taxonomy of those Web-based new literacies that the Egyptian EFL student teachers needed in this ICTs-dominated age is a major contribution of the study to the field of TESOL/TEFL methodology. In the future, this list should guide EFL teacher educators both theoretically (i.e. in their research studies so as not to reinvent the wheel of research), and practically (i.e. in their teaching practices).

Moreover, the list and the underlying taxonomy should function on a wider global scale as an addition to the TESOL/TEFL knowledge base since, to the best of my knowledge, no comprehensive list in the field exists. Practitioners will be in a position to mark a shift towards accommodating this knowledge base to absorb these new literacies and consider them in the process of EFL curriculum design in general.

b) Generating a design framework that involves a domain specific instructional theory

At the theoretical level, my final design framework (see Chapter 7) involved a design theory or, in diSessa & Cobb's (2004) terms, a domain specific instructional theory. This theory was about language learning based on the iterations conducted within the Egyptian context. It was not a grand theory that should be recognised world wide and be applicable to any context; rather, it was a contextualised theory the formulation of which was based on both the wide language learning theories and the specific contextual issues as indicated by the results obtained from the iterations.

Along with this theoretical orientation, the framework provided some specific design principles that included some guidelines and procedures. Therefore, in the long run and on a wider scale, it should act as a guide to help EFL teacher educators to integrate some Web-based new literacies into their TESOL/TEFL methodology courses. To date, as I argued in Chapter 1, there are no principles or guidelines that inform this integration into the Egyptian pre-service EFL teacher education programmes. This absence of a theoretical grounding resulted in disconnected individual attempts conducted by researchers. Throughout the prototyping phase, this framework was

developed and tested based on the context. Regardless of the forms that it took until a final form was reached, the framework included the following main components: (1) a general language learning theory; (2) some detailed teaching/learning procedures; (3) a characterisation of the learning environment; (4) a view on the Web as an innovation and medium for ELL.

Hence, this contribution, which might extend beyond the scope of my design study, has many implications, which can be summarised as follows:

- 1) The design framework can help with improving the pre-service EFL teacher education programme itself so that it can cope with the new literacy practices imposed by the prevailing ICTs;
- 2) It can work as a theoretical foundation for future researchers working in the same area and who might expand it by focussing on more specific and/or minor aspects such as online reading and collaborative writing, and thus keep the research wheel going on;
- 3) It can inform the EFL curriculum design process in the undergraduate programme to encompass these new technologies and/or innovations;
- 4) It can foster student teachers' lifelong learning skills by encouraging them to continue their self-guided learning and professional development after graduation;
- 5) Building on students' current literacy practices, it can guide practitioners into employing the Web in many ways as a medium for language learning;
- 6) It can introduce new learning designs and approaches (e.g., CoP and 'blended learning') not familiar within the Egyptian context in general, and AUCOE in particular.

8.2.3 Contributions to Practice

a) Creating an iterative link between theory and practice within the Egyptian context

My design framework marks several shifts and iterative links between theory and practice within the Egyptian context of EFL teacher education. More specifically, focus shifted initially from practice to theory by drawing on a real learning context to identify learning problems and difficulties based on which some guidelines in the form of design principles were formulated. Following this, the shift was from theory to practice, when a theory was employed to address a specific learning problem and then reach a plausible solution or technological innovation. In the next stage, a shift from practice to theory occurred through the modifications made to the framework itself based on data obtained from the intervention. These shifts could be repeated several times until a plausible, satisfactory framework was eventually generated.

b) Improving the language learning practice by opening more spaces for language learning

The study contributed to practice within Egyptian EFL teacher education in many ways. For example, the two iterations exposed student teachers to new literacies that should have expanded their language literacy practices. Through working in both online and blended mode, participants could experiment with many new technological ideas in their language learning context and experience communication and sharing knowledge through new means. The nature of language learning and literacy practices was transformed by the new technology, and participants were able to realise how the new spaces through which they were practising English as a foreign language improved their mastery of the English language (see Chapter 6) by giving them the chance to learn according to their personal pace, and express themselves freely in the way they liked using favourite Web-based facilities.

8.3 Limitations of the Study

Like all empirical studies, this study has many limitations that should be acknowledged. These limitations revolve around issues of purposive sampling, time constraints, distance factors, reliability of results, online data collection, using interventions during the prototyping phase, the way that participants reported the data in different stages of data collection, and the rapid developments in ICTs.

One of the limitations is that the samples of EFL student teachers selected purposively for the intervention (n=35 in the first iteration, and n=30 in the second) might not have been representative of the whole population of senior EFL student teachers (n=210). However, I was obliged to use purposive sampling through a screening questionnaire (see Appendix H) to allow only those skilful participants with positive attitudes towards the Web to participate (see Chapter 4). On the negative side, having those with the most positive attitudes towards the Web in the course could have influenced the way that participants wrote their feedback reports. For this reason, and as I explained in Chapter 7, I employed an external observer to take some field notes to work as an objective tool which participants' reports were compared against.

This links to another limitation that relates to the inability to administer a technical course preceding the intervention. Results (see Chapter 7) indicated the need for a technical preparatory course so that student teachers can be technically literate on equal levels. Although the screening questionnaire helped with identifying those student teachers who possessed the minimum knowledge and skills required for any Web-mediated interventions, many of the selected participants were struggling during the interventions with some technical difficulties. If they received a short introductory technical course, much of the trouble might have been avoided.

Another limitation relates to prototyping since the study did not allow for the exhaustive, long-term prototyping process familiar in many previous design studies. The prototyping phase was short, lasting as a whole for no more than six months, and involving two iterations only. Therefore, the design principles stated in Chapter 7 were final within the study, but on a wider scale, they were open for possible modifications and refinements by future studies. Further, this limitation is the main reason for proposing a revised DBR version, as discussed above, suitable for the present study.

Moreover, as far as the design-based research methodology was concerned, specific circumstances influenced the research process leading me, for example, to draw on a specific learning design, not another. Thus, in the first iteration, because it was not possible to meet face-to-face with participants, an online version was more plausible than a face-to-face or blended solution. In the preliminary stage, some interviewees suggested a variety of learning designs for the target context (see Chapter 4). Based on the pragmatic, dialogic approach to research guiding the whole study as well as my adapted DBR version, I had to be realistic and adjust myself to the requirements and

restrictions imposed by the situation by starting with a feasible design. After all, DBR generally entails trying things out in reality to see how they work, and does not force researchers or practitioners at the onset of the project to employ all the suggested solutions; instead, the methodology is flexible enough to allow for free choices to be made depending on the specific conditions of the study (see Chapter 2).

As far as the prototyping phase is concerned, there was a limitation related to the first iteration. The reliability of the findings could have been improved by using an objective tool to go alongside with the subjective tools that were used (i.e. triangulation). However, it was difficult to use an objective/external tool in this online design since no colleagues accepted to help, as they were too busy with teaching obligations at that time. This weakness was resolved in the second iteration (i.e. the blended design).

In the same vein, the online interviews and questionnaire used for collecting data in the preliminary phase (see Chapter 4) were administered only to those EFL student teachers and teacher educators who were using the Web. Though this online administration helped with reaching many participants in many Egyptian universities, it brought to the fore a specific category who were technologically literate and who were using the Web on a regular basis. In spite of being a limitation in itself, this practice, in another sense, helped with bringing those who had interests in both areas: TESOL/TEFL methodology and the Web. My rationale was that any TESOL/TEFL specialists who do not use the Web themselves as part of their daily activities, will not provide useful inputs in this regard.

Another limitation relates to employing empirical data collected in the preliminary phase (see Chapter 4); because of time constraints, I had to be selective while utilising these data within the prototyping process. More specifically, while designing the interventions, I could not address all the listed Web-based new literacies, nor could I employ all the Web-based facilities concluded from the interview data, especially because the interviewees provided a big number of ideas that can stand as an independent contribution (see Chapter 4). Therefore, I experimented with some major representative examples that served my purposes. The Web-based new literacies list in particular, and which was intended as a contribution on its own right (see Appendix D), was too long and comprehensive to address all the listed items.

Another limitation relates to the semi-structured interviews conducted online; the language of the interviews was English, not Arabic. Doing the interviews in Arabic

could have allowed participants to express themselves freely, and thus more ideas, insights, and details could have been obtained (see also Ibrahim 2009). However, all interviewees were English specialists, and thus were capable enough to express themselves in English. Besides, I intended to use English to save time, facilitate transcription, and allow for doing the interviews with a wider audience (n=19). Besides, being the standard language of the Internet, it was easy to write and respond online in English rather than in Arabic. In addition, some participants preferred English to try their language; many of them preferred to respond in English, resorting to Arabic only when stuck.

As far as data collection in the different stages of the study is concerned, there is a limitation that relates to the fact that I relied on what participants (especially the interviewees during the preliminary stage) reported rather than on the actual practices that were going on. In other words, participants might have given accounts on their needs and behaviours rather than their real-teaching practices. An alternative research methodology could have focussed more heavily on practice rather than opinion, and allowed more solid discussion of what was actually beneficial to practising teachers. However, this limitation is common in interview situations, which, unlike real observations, do not allow for watching real practices on site.

The final limitation is associated with the vast developments in the ICTs and Web-based technologies (e.g., moving from the Web 0.2 generation to Web 3.0). The study is limited to the current developments in the area and how they relate to language teaching/learning (e.g., current new literacies and Web-based facilities and the current status of CALL which has not been normalised yet within educational practices). Unfortunately, these developments might sound obsolete after a short period of time. However, the theoretical arguments and design principles, especially those related to language learning theory and practice, are intended to be used by future generations regardless of the anticipated advancements in Web-based technologies. After all, we are still using and drawing on past arguments that are still relevant to the knowledge base in the area, such as Warschauer's (e.g., Warschauer 2000) and Bax's (e.g., Bax 2000) arguments in the field.

8.4 Recommendations and Suggestions for Further Research

8.4.1 Recommendations

Based on the two iterations conducted in the Egyptian context of EFL teacher education, the design framework as the main results of the study, and the discussion above, the following recommendations are suggested:

1. More focus in the Egyptian language-learning contexts, especially within pre-service EFL teacher education programmes, should be on new literacy practices to expand the concept of literacy so that it can include the new literacies imposed by new technologies like the Web. This involves moving from the paper-based practices to the digital online practices such as blogging, online reading, online collaborative and connective writing, online social networking, online communication with others both locally and globally, and online publishing of language accounts.
2. The EFL curriculum design process in the pre-service EFL teacher education programmes should consider the changing nature of language learning as a result of the strong influence of ICTs, and therefore, Web-based facilities should be employed alongside with the paper-based resources as authentic language learning resources.
3. EFL teacher educators should consider using some prominent language learning/teaching approaches and methods such as socio-constructivism, socio-culturalism, and dialogic learning in their teaching practices, especially as far as the TESOL/TEFL methodology course is concerned. These approaches and methods will allow for focussing on both the personal and social aspects of learning, which might pave the way for integrating more innovations and literacies into the context.
4. Blended learning should be used as an umbrella approach for delivering language courses, especially when there is an intention to integrate any new literacies or innovations into the EFL teacher education programmes. The commonly-used lecture method is a teacher-centred approach that does not allow for the flexibility necessary for employing multi-modal learning and shifting between many learning means and resources. Besides, the blended learning mode as concluded in the second iteration (see Chapter 6) proved to be the most appropriate language learning approach for AUCOE.

5. Egyptian colleges of education, especially AUCOE, should resolve the logistic and bureaucratic obstacles that hinder EFL student teachers' regular access to the Internet to prepare for a normalisation stage in which such technologies become an invisible part of the teaching/learning process.
6. More focus should be on the real teaching/learning practices inside the classrooms within the Egyptian context in general and the AUCOE context in particular, as a main resource for informing and improving the process of planning and designing the language curricula. In other words, this bottom-up model of curriculum design should be used side by side with the traditional top-down model used in the Egyptian context.
7. Team research projects with a DBR orientation should be initiated in the Egyptian contexts of pre-service EFL teacher education to improve practice since the individual experimental research projects failed to accomplish this goal.

8.4.2 Suggestions for further research

Further research is needed to explore many issues and topics within the Egyptian context. For example, further studies are needed to experiment with the suggested design principles instead of reinventing the wheel of research. For this purpose, some experimental and action research studies are needed to investigate whether these principles will be effective and workable in reality, and which modifications should be made to them to produce stronger and/or more detailed principles for expanding EFL student teachers' language-related literacy practices within the context of AUCOE.

Further research is also needed to explore how some language skills, such as reading and writing, have been influenced by the Web. More specifically, online reading, online writing, connective writing, and collaborative writing as new literacy forms and practices should be studied while considering how to shift thinking in TESOL within the Egyptian context to accommodate these new practices.

Future research is needed to explore more the affordances of certain Web-based facilities such as Blogs and Wikis within language learning contexts in general, and within pre-service EFL teacher education contexts in particular. Some focus on these facilities is needed to explore more the affordances (i.e. functions and uses) they might hold for the language learning process. For example, the Wiki should be explored more

as a means of practising collaborative writing, including the ways in which Wikis can transform language learning pedagogy. Similarly, some online tools used asynchronously and collaboratively by learners such as Blogs, Google documents, and Google Wave, should be explored in terms of how they can develop connective writing and facilitate the process of producing a shared product. These tools can be explored in the context of certain academic courses such as Essay Writing. In the same vein, different forms of computer-mediated communication (CMC) such as chat, e-mail, and e-groups, can be investigated in terms of how they can facilitate authentic communication, language practice, and knowledge construction among language learners.

Furthermore, more studies on integrating new literacies are needed in other language learning contexts in public education such as primary schools, preparatory schools, and secondary schools. Though the Egyptian educational system currently provides courses dealing with computer literacy early from the primary stage, no connection is made with the English courses and the specific uses of the new technologies for language learning purposes.

Research is also needed to investigate the influence of different learning modes, such as online learning, Web-mediated learning, and blended learning, on the language learning process, and the differences between these modes as well as the appropriate language learning theories/approaches that should be used under them. In other words, further research is needed to enrich language learning pedagogy by providing practical evidence on the extent to which many forms of learning based on the Web can be feasible and influential.

Potential follow-up studies should be conducted to investigate the real impact of the suggested 'blended' learning approach on language teaching and learning. These studies should look closer at the real practices of EFL student teachers and teacher educators to derive conclusions to be used by further studies. These studies should explore ways in which EFL student teachers interact with the Web for many language learning purposes, and suggest learning designs under the main blended learning design that build on these interactions. Since the suggested blended learning approach is flexible enough to encompass many learning means and strategies, more focus should be on blending

multiple Web-based facilities and multiple Web-based learning strategies based on the real learning needs and practices within the target context.

Further research is also needed to address many other new forms of literacy, such as visual literacies, electronic literacies, and digital literacies, and how they can be integrated within language learning contexts. As far as the Egyptian pre-service EFL teacher education programmes are concerned, especially at AUCOE, more studies are needed to explore the feasibility of integrating many relevant academic courses together in such a way that addresses student teachers' literacy needs.

8.5 Reflections and Concluding Remarks

Throughout this research journey, I learned many useful things new for me. One of these things relates to the nature of the research process itself. Utilising the DBR methodology entails perceiving the research process from a different perspective. In the Egyptian context, researchers proceed into the research process in a linear fashion starting from point A, for example, and ending in point Z. Based on my experience, I see it as an iterative, dialogic process in which some new ideas or results might lead one to revisit the already written chapters to modify or delete some arguments.

For example, the process of generating a final design framework was a non-linear, iterative, and dialogic process that simultaneously drew on multiple sources, and involved many overlapping steps and procedures. Thus, in revising the preliminary framework, beside the first iteration results as a main resource, the revised framework drew on other resources such as literature review and empirical data. The empirical data obtained in the preliminary phase of the study were not intended to inform the first iteration only, especially because different interviewees had different suggestions and ideas related to learning theories and designs.

Based on the two iterations, literature review, and empirical data, I can argue that for any design framework that introduces new literacies and facilities into the Egyptian context to be successful in expanding student teachers' literacy practices, it should address the following essential aspects:

- 1) The global trends in teaching and learning, especially as far as new technologies and literacies are concerned;

- 2) The new literacy forms and/or skills that student teachers should master to cope with the changing world;
- 3) The students' local needs, their educators' perspectives, and the goals of the education programme itself;
- 4) The technological affordances enabled by Web-based facilities that should be employed to meet students' needs and address their new literacy skills;
- 5) The local difficulties and challenges that hinder the integration of new literacies;
- 6) Some specific guidelines based on both literature and empirical data.

Another thing relates to how the technology positively influenced the research process. For example, the Web allowed for reaching many participants in many places in Egypt, and thus helped with overcoming the physical and geographical boundaries that stood as significant obstacles for researchers in the past. In addition, it played a significant role in mediating instruction during the prototyping phase. In addition, certain software (e.g., Microsoft Word, SPSS, and NVivo 8) facilitated the data analysis process; the software application did not do the whole job, but rather it saved much effort and time, and thus allowed for more reflection. Although they know how to use the software, some researchers still prefer to do some processes, especially qualitative data analysis, manually. It seems a question of attitude and personal preference. I used NVivo 8 three times during the research process (i.e. twice in the preliminary phase for documentary analysis and then for interview data analysis, and once in the assessment/reflective phase for analysing data obtained from both feedback reports and observation field notes). Based on this experience, I can say that the software helped with organising the messy data, and consequently, with generating some themes.

One of the most influential tools I used was the online research diary in the form of a *yahoo! Notepad* within my e-mail account. This practice managed the research process for me by making me able to: (1) organise my whole work within relevant folders based on topic; (2) monitor my progress by, for example, reviewing the tasks I have accomplished, and the tasks remaining ahead; (3) save useful readings and textual resources to refer back to on a regular basis; (4) create some preliminary drafts of the ideas I should tackle, and update these drafts when something new comes to my mind; and (5) create reminders to be reviewed on a weekly basis so that nothing is missed or forgotten.

The last thing relates to the revised DBR version whose flexible nature has many implications for the Egyptian context of educational research. For example, instead of having an experimental design as a unified format, which involves controlling variables and designing identical pre-post tests, researchers can proceed into curriculum and methodology studies in a developmental fashion that involves negotiating and characterising the context rather than controlling it. The educational process is a complicated human activity in which, unlike in physical sciences, it is nearly impossible to control all the variables (Crotty, 1998; Van den Akker et al, 2006).

Therefore, instead of controlling the variables and designing one intervention to be statistically and objectively tested before and after the experiment in artificial situations, researchers in Egypt should adopt a flexible, developmental approach that helps with providing deeper understanding into and characterisation of the target contexts. This means that they should start with collecting data, then, generate theoretical and design frameworks, design a preliminary intervention, evaluate how it works in the real context, identify both strengths and weaknesses, design another intervention that overcomes the observed weaknesses, test it in reality, and repeat these procedures when necessary until a satisfactory product is reached.

This might be, especially at the beginning, an exhausting process for educational researchers in Egypt who are usually keen to finish their studies in time. However, the process might be more feasible when the same research project is conducted by many researchers who should work collaboratively towards the same objectives, with each contributing with certain useful inputs depending on his/her interests, skills, and strengths.



College of Social Sciences and International Studies
Graduate School of Education

**Web-Based New Literacies and EFL Curriculum Design in
Teacher Education: A Design Study for Expanding EFL
Student Teachers' Language-Related Literacy Practices in
an Egyptian Pre-service Teacher Education Programme**

Volume 2 of 2

Submitted by **Mahmoud Mohammad Sayed Abdallah**, to the University of Exeter as a thesis for the degree of Doctor of Philosophy in Education, April, 2011.

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I certify that all material in this thesis which is not my own work has been identified and that no material has previously been submitted and approved for the award of a degree by this or any other University.

Mahmoud Abdallah

Signature:

APPENDICES

Appendix A: Semi-structured Online Interviews for Piloting the Context

I-Sample interview questions used with EFL student teachers (Note: These questions are just exemplar questions which were not typically used in the same order and format)

1-Have you experienced any difficulties related to using the Internet in your study (if participants were not able to get what was meant by *difficulties* in this context, they were briefed that examples of such difficulties include: not being able to locate relevant data to something they study; feeling overwhelmed with the vast amount of data available online; and not being able to understand online content)?

2-If so, what were these problems/difficulties? (Be specific and detailed giving examples as much as you can)

3-Have you received any training of any kind in the College of Education in using the Internet for study/academic purposes related to English teaching and learning? (If the answer was positive, other follow-up questions would follow: In what subjects/courses did you receive such training? Was the training sufficient/satisfactory meeting your expectations?)

4-Do you think that you need a focussed or concentrated instruction/guidance in your training programme at the College of Education into how to use the Internet effectively for study purposes? Why? (Participants were prompted to state detailed and specific reasons).

5-Have you heard about the new literacy forms imposed by the Internet? (If the answer was positive, another follow-up question would be: do you think that you need any of these new Internet-related forms in your pre-service training as an English teacher?)

6-Do you think that the college provides you with opportunities to use the Internet for academic purposes in the course of your study programme? (Participants were prompted to give as much justifications, explanations, and examples as possible).

7-Do you believe that integrating the teaching of how to use the Internet for academic purposes in your training programme will make any difference? Why? (Participants were prompted to state their reasons in both cases).

8-In your personal opinion, how important the Internet can be for you in the context of this education or training programme? (Participants were prompted to give realistic examples and specific details).

II-Sample interview questions used with EFL teacher educators

1-Do you encourage your students to use the Internet for academic purposes related to TEFL/ELT? Have you noticed (or heard about) any difficulties that your students might have experienced with using the Internet? (Teachers were given examples of these difficulties, such as: not being able to locating relevant data to something they study) If the answer was positive, this follow-up question would follow: what were these problems/difficulties? (Teachers were asked to be specific and detailed giving examples as much as possible).

3-Do EFL student teachers received any training of any kind in the College of Education in using the Internet for study/academic purposes related to English teaching and learning? (If the answer was positive, the following question would follow: In what subjects/courses did they receive such training?).

4-Do you think that they need a focussed or concentrated instruction/guidance in their current training programme at the College of Education into how to use the Internet effectively for study purposes? Why?

5-Do you think that your students need to acquire and practice the new literacy forms imposed by the Internet?

6-Throughout your interaction with those students, how far are you satisfied with their current literacy practices?

7-Do you believe that integrating the teaching of how to use the Internet for academic purposes in the EFL training programme will make any difference for them? Why? (Teachers were prompted to state reasons in both cases).

8-To what extent do you think the Internet is useful for improving students' language skills and academic study? (Teachers were prompted to give details and examples).

Appendix B: Certificate of Ethical Research Approval

STUDENT HIGHER-LEVEL RESEARCH



Graduate School of Education

Certificate of ethical research approval

STUDENT RESEARCH/FIELDWORK/CASEWORK AND DISSERTATION/THESIS

You will need to complete this certificate when you undertake a piece of higher-level research (e.g. Masters, PhD, EdD level).

To activate this certificate you need to first sign it yourself, and then have it signed by your supervisor and finally by the Chair of the School's Ethics Committee.

For further information on ethical educational research access the guidelines on the BERA web site: <http://www.bera.ac.uk/publications/guidelines/> and view the School's statement on the GSE student access on-line documents.

READ THIS FORM CAREFULLY AND THEN COMPLETE IT ON YOUR COMPUTER (the form will expand to contain the text you enter). **DO NOT COMPLETE BY HAND**

Your name: Mahmoud Mohammad Sayed Abdallah

Your student no: 570028342

Return address for this certificate: 135 Monks Road, Exeter, EX4 7BQ

Degree/Programme of Study: Doctor of Philosophy in Education

Project Supervisor(s): (1) Prof. Rupert Wegerif (2) Prof. Tony Wright

Your email address: (1) mms203@ex.ac.uk (2) msayed40@yahoo.com

Tel: 07590682436

I hereby certify that I will abide by the details given overleaf and that I undertake in my dissertation / thesis (delete whichever is inappropriate) **to respect the dignity and privacy of those participating in this research.**

I confirm that if my research should change radically, I will complete a further form.

Signed:  **date:** 5.11.2010

NB For Masters dissertations, which are marked blind, this first page must **not be included** in your work. It can be kept for your records.

Chair of the School's Ethics Committee
updated: July 2010

Certificate of ethical research approval

Your student no: 570028342

Title of your project: Web-Based New Literacies and EFL Curriculum Design: A Design Study for Expanding EFL Student Teachers' Language-Related Literacy Practices in an Egyptian Pre-service Teacher Education Programme

Brief description of your research project:

The main objective of the proposed study is to investigate the possibility of expanding Egyptian pre-service EFL student teachers' language-related literacy practices by integrating some Web-based new literacies into their education programme, with specific reference to Assiut University College of Education (AUCOE) in Egypt. This requires accomplishing minor objectives represented in: (1) identifying the range of those Web-based new literacies that Egyptian EFL student teachers needed; (2) identifying those Web-based facilities beneficial to them; and (3) generating a design framework including some design principles based on both literature and empirical data and which should have some implications for EFL curriculum design. To accomplish this, a design-based research (DBR) methodology drawing on a pragmatic epistemology is employed as the main research paradigm. The study comes out with implications for the EFL curriculum design process within the Egyptian context in general, and AUCOE in particular. Some significant conclusions and educational implications are provided along with some main contributions to knowledge in TESOL/TEFL, language learning theory, research methodology, and educational practice as far as the Egyptian context of pre-service EFL teacher education is concerned.

Give details of the participants in this research (giving ages of any children and/or young people involved):

Generally, participants are adults (i.e. student teachers, teacher educators, and teacher trainers) whose ages range between 19-55. All of them participate on a voluntary basis, whether face to face or online. The online interviews are conducted with 19 participants, and the online questionnaire is administered to 50 participants. The two cycles of the research in the prototyping phase are conducted with 30-40 EFL student teachers whose ages range between 19-21. All of them participate on a voluntary basis and no power relationships are used to force them to participate.

Give details (with special reference to any children or those with special needs) regarding the ethical issues of:

- a) **informed consent:** Where children in schools are involved this includes both headteachers and parents). An example of the consent form(s) must accompany this document. a blank consent form can be downloaded from the GSE student access on-line documents:

Participants are mature enough to decide whether to participate or not. Therefore, their personal consent is requested (especially as far as the face-to-face interactions are concerned) before administering the interventional programme to them in the prototyping phase.

b) anonymity and confidentiality

Anonymity and confidentiality are assured as no real names should appear in the thesis. Pseudonyms are used instead to refer to certain participants, especially as far as the interviews are concerned. Besides, before administering any research tool, participants are assured that the data they provide are dealt with confidentially and that, based on their request, a copy of the data used in the thesis can be sent to them.

Give details of the methods to be used for data collection and analysis and how you would ensure they do not cause any harm, detriment or unreasonable stress:

To accomplish the main research objectives, a flexible three-stage research framework is used which involves many methods of data collection and analysis: (1) The preliminary phase, which acts as a theoretical grounding for the whole study based on which a preliminary design framework is established; it involves reviewing relevant literature and obtaining empirical data through documentary analysis, online questionnaire administered online to 50 participants to complete based on their convenience, and semi-structured interviews conducted online with 19 participants. Participants are asked to provide their input based on their convenience and favourite electronic means of communication (e.g., e-mail, voice chat, and written chat). A thematic analysis supported by NVivo 8 is used for analysing qualitative data, while SPSS is used for analysing the quantitative data obtained through the online questionnaire; (2) the prototyping phase involves two iterations conducted in the Egyptian context to test the preliminary design framework. Each iteration acts as a micro-cycle of the whole design study, and thus involving its own objectives, learning design, participants, research methodologies (in line with the main DBR methodology), and results. The second iteration, in particular, involves using an interventional programme in the form of a short literacy course administered to 30 participants. This involves face-to-face interactions with EFL student teachers who are given regular breaks to avoid any stress or physical pain resulting from using the Internet. Further, participants are given the total freedom to withdraw at anytime once they do not feel well; (3) the assessment phase presents, based on the prototyping phase results, a final design framework for expanding EFL student teachers' language-related literacy practices.

Give details of any other ethical issues which may arise from this project (e.g. secure storage of videos/recorded interviews/photos/completed questionnaires or special arrangements made for participants with special needs etc.):

All the data resulting from the interviews, questionnaire, and the two iterations of the study are stored safely and privately to be used only for research purposes and never disclosed to anyone for any reason. Besides, participants are given freedom to choose the means of communication that appeal to them during the interviews so that they feel comfortable and thus provide good input. Besides, their privacy is totally considered and respected during any interaction with them.

Give details of any exceptional factors, which may raise ethical issues (e.g. potential political or ideological conflicts which may pose danger or harm to participants):

The only factors that might cause concern are mainly cultural ones since the prototyping phase involves both male and female participants; interaction between male and female students in the Egyptian culture is a very sensitive issue, and therefore, communication among them (especially online communication) should take place on a public space (e.g., e-group, Blogs, and Wikis). This way, females would have no concerns since all communications are public, not private, and thus their dignity, good reputation, and privacy are highly considered.

This form should now be printed out, signed by you on the first page and sent to your supervisor to sign. Your supervisor will forward this document to the School's **Research Support Office** for the Chair of the School's Ethics Committee to countersign. A unique approval reference will be added and this certificate will be returned to you to be included at the back of your dissertation/thesis.

N.B. You should not start the fieldwork part of the project until you have the signature of your supervisor

This project has been approved for the period:

until: 30/9/2011

By (above mentioned supervisor's signature):  **date:** 15th Nov 2010

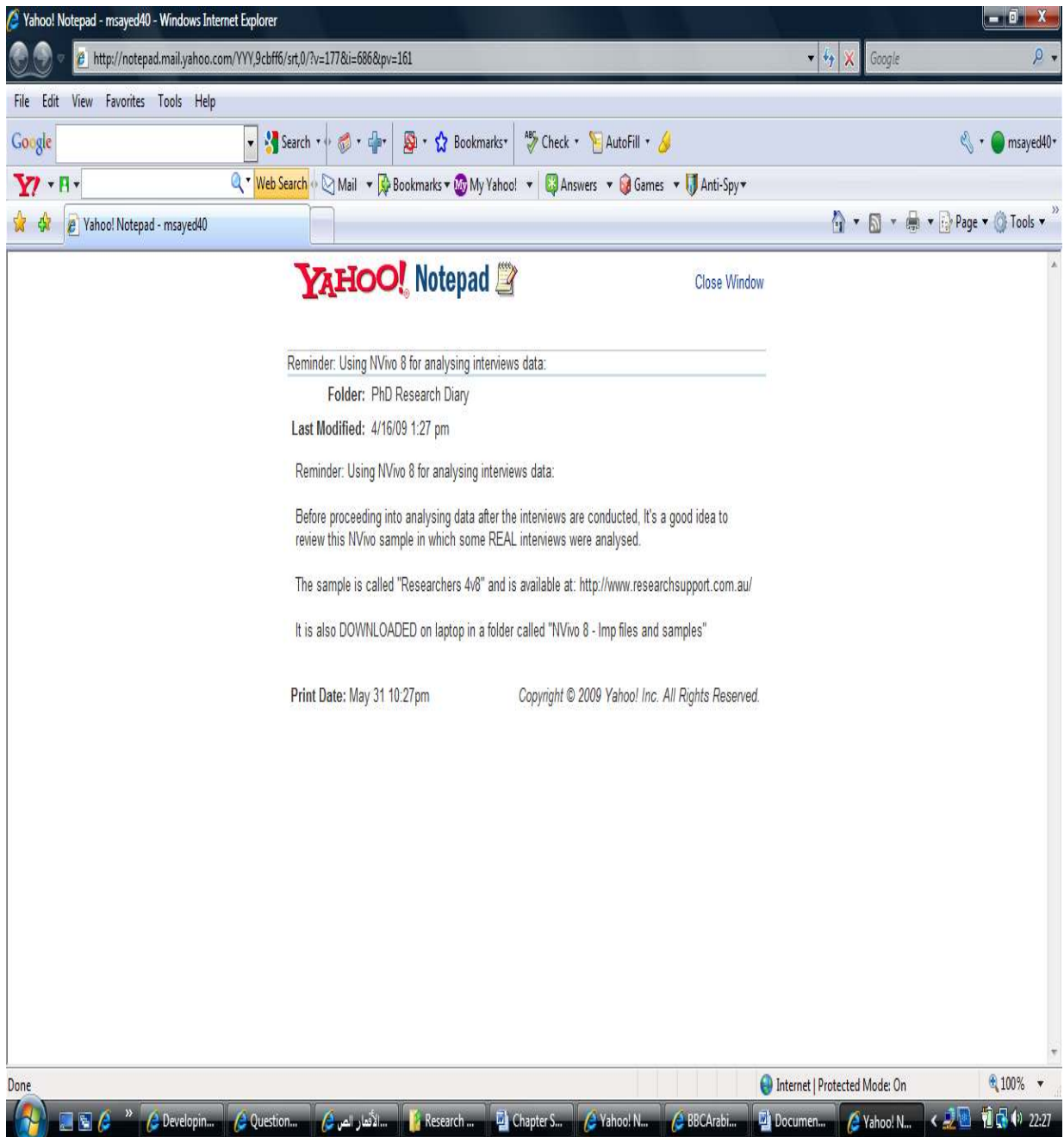
N.B. To Supervisor: Please ensure that ethical issues are addressed annually in your report and if any changes in the research occur a further form is completed.

GSE unique approval reference: D1101110

Signed:  **date:** 18/11/2010
Chair of the School's Ethics Committee

This form is available from <http://education.exeter.ac.uk/students/>

Appendix C: My Online PhD Research Diary (Sample Screen Shots from my *Yahoo! Notepad*)



Yahoo! Notepad - msayed40 - Windows Internet Explorer

http://notepad.mail.yahoo.com/YYYY,c4abb1/srt,0/?v=163

File Edit View Favorites Tools Help

Google thematic analysis Search Bookmarks Check AutoFill thematic analysis msayed40

Y Web Search Mail Bookmarks My Yahoo! Answers Games Anti-Spy

Yahoo! Notepad - msayed40

Mail Contacts Calendar **Notepad** Sync - Options

Add Note Add Folder

Folders [Edit]

- All
- Unfiled
- Accounts and Pws
- Contacts and addresses
- Electronics: Computer, Internet and Mobile
- Favorite sites
- Financial Transactions and Bank Issues
- Literature and Poetry
- PhD Reminder
- PhD Research Diary
- PhD Research methods/design/tools
- PhD previous studies
- PhD related issues
- PhD-Data Analysis
- PhD-
 - Literacy/approches/new literacies

Notepad

Showing 1 - 43 of 43 First Previous Next Last

Delete

Note	Folder	Last Modified
<input type="checkbox"/> VERY IMP article on online reading comprehension sent by Prof. Douglas Hartman:	PhD-Literacy/approches/new literacies	5/14/09 3:29 pm
<input type="checkbox"/> Very IMP theoretical part on literacy and new literacies in teacher education:	PhD-Literacy/approches/new literacies	2/4/09 11:10 pm
<input type="checkbox"/> HISTORICAL CONCEPTIONS OF LITERACY PRACTICES: Very important part:	PhD-Literacy/approches/new literacies	2/1/09 12:24 pm
<input type="checkbox"/> VERY imp: Review this article: Good argument on literacy approaches:	PhD-Literacy/approches/new literacies	1/19/09 5:27 pm
<input type="checkbox"/> An imp article: Implications of "New" Literacies for Writing Research.	PhD-Literacy/approches/new literacies	1/16/09 9:14 pm
<input type="checkbox"/> IMP article on literacy practices: Myers J. (2006). Literacy practices and digital literacies:	PhD-Literacy/approches/new literacies	1/12/09 9:52 pm
<input type="checkbox"/> New important article and study on new literacies:	PhD-Literacy/approches/new literacies	12/10/08 10:14 am
<input type="checkbox"/> Debra's comments on Chapter 3 on new literacies:	PhD-Literacy/approches/new literacies	12/3/08 5:14 pm
<input type="checkbox"/> Two IMPORTANT books have just arrived in library: To be always borrowed:	PhD-Literacy/approches/new literacies	11/18/08 2:32 pm
<input type="checkbox"/> Modifications of Chapter three	PhD-Literacy/approches/new literacies	11/13/08 3:11 pm
<input type="checkbox"/> Review this important article: Toward a Theoretical Framework of New Literacies on the Internet: Central Principles	PhD-Literacy/approches/new literacies	11/12/08 4:39 pm
<input type="checkbox"/> Review this important book that shows relation between new media, literacy and learning: Technology, Literacy and Learning: A Multimodal Approach	PhD-Literacy/approches/new literacies	11/9/08 11:21 pm
<input type="checkbox"/> Review this nice article by Street: Futures of the Ethnography of Literacy?	PhD-Literacy/approches/new literacies	11/9/08 10:34 pm
<input type="checkbox"/> Read this VERY IMPORTANT ARTICLE by Street: Multimodality and New Literacy Studies	PhD-Literacy/approches/new literacies	11/9/08 4:21 pm

Yahoo! Notepad - msayed40 - Windows Internet Explorer 100%

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YAHOO! NOTEPAD

Y! Search WEB SEARCH

Mail Contacts Calendar **Notepad** Sync - Options

Add Note Add Folder

Folders [Edit]

- All
- Unfiled
- Accounts and Pws
- Contacts and addresses
- Electronics: Computer, Internet and Mobile
- Favorite sites
- Financial Transactions and Bank Issues
- Literature and Poetry
- PhD Reminder
- PhD Research Diary
- PhD Research methods/design/tools
- PhD previous studies
- PhD related issues

Notepad

Delete

Showing 1 - 100 of 399 First Previous Next Last

<input type="checkbox"/>	Note	Folder	Last Modified
<input type="checkbox"/>	Adding a new category to the scaling rate (i.e. I don't know) of Web-based n.literacies questionnaire:	PhD-Tools-Questionnaires	5/30/09 7:23 pm
<input type="checkbox"/>	Info of my University web-based survey or questionnaire design login:	Accounts and Pws	5/29/09 12:47 pm
<input type="checkbox"/>	Weight and Shipping on Egypt air:	UK and Exeter Living Affairs	5/29/09 10:51 am
<input type="checkbox"/>	Using SPSS to identify the needed Web-based new literacies from the list:	PhD-Tools-Documentary analysis	5/27/09 4:51 pm
<input type="checkbox"/>	Using SPSS to identify the needed Web-based new literacies from the list:	PhD Research Diary	5/27/09 4:50 pm
<input type="checkbox"/>	Essential readings for questionnaire suggested by Mahmoud Emam:	PhD Research Diary	5/26/09 11:38 pm
<input type="checkbox"/>	Essential readings for questionnaire suggested by Mahmoud Emam:	PhD-Tools-Questionnaires	5/26/09 11:38 pm
<input type="checkbox"/>	Yahoo customer care reply concerning chat & Mobile text service:	Electronics: Computer, Internet and Mobile	5/22/09 11:48 pm
<input type="checkbox"/>	Dr Salwa's account on web-based new literacies that EFL student teachers need:	PhD-Tools-Documentary analysis	5/21/09 1:42 pm
<input type="checkbox"/>	Hani Mousa's thesis info: title and other stuff.	PhD related issues	5/20/09 8:48 pm
<input type="checkbox"/>	Resources and ideas for designing questionnaires:	PhD-Tools-Questionnaires	5/20/09 3:56 am
<input type="checkbox"/>	Cover letter for the new literacies list questionnaire:	Phd-Tools-Documentary analysis	5/20/09 1:25 am

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Yahoo! Notepad - msayed40 - Windows Internet Explorer

http://notepad.mail.yahoo.com/YYY_dtb6fcl/srt,0/?v=177&i=453&pv=161

File Edit View Favorites Tools Help

Google Search

Web Search Mail Bookmarks My Yahoo! Answers Games Anti-Spy

Yahoo! Notepad - msayed40

YAHOO! Notepad

Close Window

Read more about affordances: Malcolm's suggested readings:

Folder: PhD-Web/Internet and WBL

Last Modified: 12/25/08 1:05 pm

Read more about affordances: Malcolm's suggested readings:

Below is Malcolm's email:

http://en.wikipedia.org/wiki/J.J._Gibson

J. J. Gibson Gibson, J.J. & Gibson, E. (1955). Perceptual learning: differentiation or enrichment? *Psyc. Rev.*, 62, 32-41.

Gibson, J.J. (1950). *The Perception of the Visual World*. Boston : Houghton Mifflin.

Gibson, J.J. (1966). *The Senses Considered as Perceptual Systems*. Boston : Houghton Mifflin. ISBN 0313239614

Gibson, J.J. (1972). A theory of Direct Visual Perception. In J. Royce, W. Rozenboom (Eds.). *The psychology of Knowing*. New York : Gordon & Breach.

Gibson, J.J. (1977). *The Theory of Affordances* (pp. 67-82). In R. Shaw & J. Bransford (Eds.). *Perceiving, Acting, and Knowing: Toward an Ecological Psychology*. Hillsdale, NJ : Lawrence Erlbaum.

Gibson, J.J. (1979). *The Ecological Approach to Visual Perception*. Boston : Houghton Mifflin. ISBN 0898599598 (1986)

Gibson, J.J. (1982). *Reasons for Realism: Selected essays of James J. Gibson, E. Reed & R. Jones* (Eds.). Hillsdale, NJ : Lawrence Erlbaum.

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Internet | Protected Mode: On 100%

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22:38

Yahoo! Notepad - msayed40 - Windows Internet Explorer

http://notepad.mail.yahoo.com/

File Edit View Favorites Tools Help

Google thematic analysis Search Bookmarks Check AutoFill thematic analysis msayed40

Web Search Mail Bookmarks My Yahoo! Answers Games Anti-Spy

Yahoo! Notepad - msayed40

PhD previous studies	Resources and ideas for designing questionnaires:	PhD-Tools-Questionnaires	5/20/09 3:56 am
PhD related issues	Cover letter for the new literacies list questionnaire:	Phd-Tools-Documentary analysis	5/20/09 1:25 am
PhD-Data Analysis	Specialists' views and suggestions on my categorisation or categories of Web-based new literacies:	Phd-Tools-Documentary analysis	5/20/09 1:16 am
PhD-Literacy/approches/new literacies	To add to rationale for using semi-structured interviews with new literacies and the Internet, see this chapter:	PhD Research Diary	5/18/09 11:22 pm
PhD-New literacy practices	To add to rationale for using semi-structured interviews with new literacies and the Internet, see this chapter:	PhD-Tools-Open and semi-structured interviews	5/18/09 11:21 pm
PhD-Rationale	Colin Lankshear's view on my web-based new literacies categorisation:	PhD Research Diary	5/18/09 12:09 pm
PhD-Teacher education-lifelong learning-curriculum design	Current info:	Financial Transactions and Bank Issues	5/18/09 12:01 pm
PhD-Tools-Open and semi-structured interviews	List of professional competencies that EFL teachers need:	TEFL/TESOL resources	5/17/09 10:37 pm
PhD-Tools-Questionnaires	How to SPSS for my project: Web-based new literacies list based on doc analysis and basic computer and Internet skills questionnaire:	Phd-Tools-Documentary analysis	5/15/09 1:24 pm
PhD-Web/Internet and WBL	How to SPSS for my project: Web-based new literacies list based on doc analysis and basic computer and Internet skills questionnaire:	PhD-Tools-Questionnaires	5/15/09 1:24 pm
Phd-Intervention	How to SPSS for my project: Web-based new literacies list based on doc analysis and basic computer and Internet skills questionnaire:	PhD Research Diary	5/15/09 1:24 pm
Phd-Tools Research Diaries and Students' Diaries	How to SPSS for my project: Web-based new literacies list based on doc analysis and basic computer and Internet skills questionnaire:	Electronics: Computer, Internet and Mobile	5/15/09 1:23 pm
Phd-Tools-Documentary analysis	EXTREMELY IMP REMINDER: ask for students names to be included in the questionnaire:	PhD-Tools-Questionnaires	5/14/09 10:51 pm
TEFL/TESOL resources	EXTREMELY IMP REMINDER: ask for students names to be included in the questionnaire:	PhD Research Diary	5/14/09 10:50 pm
Travelling and living in	David Warlick's list of Web-based new literacies:	PhD Research Diary	5/14/09 10:27 pm
	David Warlick's list of Web-based new literacies:	Phd-Tools-Documentary analysis	5/14/09 10:26 pm
	VERY IMP article on online reading comprehension sent by Prof. Douglas Hartman:	Phd-Tools-Documentary analysis	5/14/09 3:30 pm
	VERY IMP article on online reading comprehension sent by Prof. Douglas Hartman:	PhD Research Diary	5/14/09 3:29 pm
	VERY IMP article on online reading comprehension sent by Prof. Douglas Hartman:	PhD-Literacy/approches/new literacies	5/14/09 3:29 pm
	Organising students or participats during interventions: One pc or computer for three or four students is ok:	Phd-Intervention	5/13/09 10:40 pm

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Yahoo! Notepad - msayed40 - Windows Internet Explorer

http://notepad.mail.yahoo.com/YYY99ac28/srt,0/?v=177&i=637&pv=161

File Edit View Favorites Tools Help

Google Search Web Search Mail Bookmarks My Yahoo! Answers Games Anti-Spy

Yahoo! Notepad - msayed40

YAHOO! Notepad  Close Window

DBR: Rupert's suggested model for how to implement DBR in the study:

Folder: PhD Research methods/design/tools

Last Modified: 3/24/09 12:40 am

DBR: Rupert's suggested model for how to implement DBR in the study:

Simplified illustration of Design Research Methodology

1. Find affordances (i.e. strengths and weaknesses) of new medial and technology for teaching purposes.
2. Find relationships between social practices and new tools and media (when is it feasible for integrating tools and how?)
3. Produce guidelines and/or principles for integrating new tools and technology into the teacher education programmes (i.e. general theory or model).
 - a. e.g. build on familiar literacy practices
 - b. e.g. foster more dialogue in English mediated by the Internet
4. Develop specific intervention designed to test principles.
 - i. e.g. integrate more chat (synchronous) and asynchronous communication types.
5. Evaluate impact of synchronous and asynchronous communication types
6. Refine model

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22:35

Appendix D: List of Web-based New Literacies

Main Categories	Specific Literacies
1-Online Communication and Collaboration	<p>1.1 Membership of online communities and the knowledge society:</p> <p>1.1.1 Students should be able to employ appropriate Web-based communication tools.</p> <p>1.1.2 Students should be able to utilise the diverse modes of Web-based communication (e.g. synchronous/asynchronous and online/offline modes) appropriately.</p> <p>1.1.3 Students should be able to communicate cross-culturally (i.e. communicate with others from diverse cultures and geographical locations).</p> <p>1.1.4 Students should show respect and consideration to others during online interactions (i.e. netiquette).</p> <p>1.1.5 Students should be able to practice roles and responsibilities effectively in an online collaborative learning community (e.g. being critical online readers, creative online writers, constructors of knowledge, effective online communicators, active participants and negotiators).</p> <p>1.1.6 Students should participate effectively in online boards and forums (e.g. bulletin boards, discussion forums, and/or listserv discussions).</p> <p>1.1.7 Students should join online email discussion groups (e.g. Yahoo Groups and Google Groups).</p> <p>1.2 Composing and writing online:</p> <p>1.2.1 Students should be able to understand and identify ways of composing, revising, and editing online, using a word processor (e.g. Microsoft Word).</p> <p>1.2.2 Students should be aware of the interactive relationship between many components while composing an online message: the audience, their purpose of</p>

Main Categories	Specific Literacies
	<p>writing, the medium, and their message.</p> <p>1.2.3 Students should show some consideration for their online audience while they are writing (e.g. considering their interests, age, cultural background, educational level, and availability).</p> <p>1.2.4 Students should be able to reflect on the quality of their own writing and the language they use while using online writing tools (e.g. they should use a formal style when they approach academic staff through email).</p> <p>1.2.5 Students should be able to employ a range of online writing tools, whether synchronous (e.g. real-time chat) or asynchronous (e.g. email), for creative writing.</p> <p>1.2.6 Students should be selective of sources during online writing (e.g. choosing the online documents and resources which sound appropriate to the writing purpose, and adapting them properly to the task at hand).</p> <p>1.2.7 Students should be able to express in their own words new knowledge derived from online resources to convey to others their personal understanding.</p> <p>1.2.8 Students should be able to share ideas with specialists and attain feedback from them (e.g. through email communication).</p> <p>1.2.9 Students should be able to practice cooperative, functional writing online (i.e. having purpose and objectives while writing to others) to promote the exchange of ideas, viewpoints and perspectives.</p> <p>1.2.10 Students should be able to employ online tools of written communication (e.g. email and blogs) to practice online writing activities (e.g. answering others' questions, making new postings, and/or responding to others' postings).</p> <p>1.2.11 Students should be able to compose and send effective online messages to influence, convince, and/or orient others.</p> <p>1.2.12 Students should be able to embed some visual, hyper-textual, and/or</p>

Main Categories	Specific Literacies
	<p>multimodal elements (e.g. smileys and links) in their messages.</p> <p>1.3 Meaning negotiation and idea sharing:</p> <p>1.3.1 Students should be able to employ the web as a publishing vehicle to express ideas and to share viewpoints as well as reflections with others.</p> <p>1.3.2 Students should be able to transfer meaning across the different multi-dimensional systems made possible by the Web (e.g. hypertext, sound, and video).</p> <p>1.3.3 Students should be able to investigate Web-based conversations and attract collaborators to construct ideas and valuable knowledge (e.g. by reviewing others' online contributions in blogs and wikis and commenting on them).</p> <p>1.3.4 Students should engage themselves in discussions with experts in the field of English language teaching/learning.</p> <p>1.3.5 Students should be able to exchange ideas and negotiate meaning through online collaboration with others by providing and receiving feedback.</p> <p>1.3.6 Students should be able to engage themselves in an online open dialogue by using free online question/answer services (e.g. Yahoo Answers) to share their experiences with others and make use of others' experiences.</p> <p>1.4 Online language practice</p> <p>1.4.1 Students should be able to use English for realistic, purposeful communication with people all over the world through Web-based communication tools and facilities.</p> <p>1.4.2 Students should employ Computer-Mediated Communication (CMC) to increase their language use and practice, and to supplement face-to-face language learning.</p> <p>1.4.3 Students should critique and respond to the language input provided by</p>

Main Categories	Specific Literacies
	<p>others.</p> <p>1.4.4 Students should be able to use reflective Web-based tools that foster learning English as a foreign language (e.g. blogs and wikis).</p>
<p>2-Online Information Management and Knowledge Construction</p>	<p>2.1 Surfing the Web and locating information</p> <p>2.1.1 Students should understand the structure and organisation of the Web and how information is displayed on it.</p> <p>2.1.2 Students should understand the advanced features, facilities and services enabled by search engines (e.g. Google translation, Google books, videos, and images).</p> <p>2.1.3 Students should be able to identify an information need or a learning need and decide which online resources to use to address that need.</p> <p>2.1.4 Students should be able to use a variety of search tools and strategies to find information that is appropriate to the task at hand.</p> <p>2.1.5 Students should be able to effectively surf the web to locate relevant and useful information using prominent search engines (e.g. Yahoo, Google, and Altavista).</p> <p>2.1.6 Students should be able to use effective techniques for organising keywords (e.g. using Boolean operators like AND, OR, and “+” to indicate relationships, and using quotation marks for locating exact phrases).</p> <p>2.1.7 Students should be able to deal effectively with searches (e.g. by rapidly selecting the most relevant results and navigating to the most reliable information resource).</p> <p>2.1.8 Students should be able to make rapid navigational decisions as to whether to read the current page of information, pursue links internal or external to the page, or perform another search.</p> <p>2.1.9 Students should be able to employ strategies for finding the most important or useful information within a website (e.g. using the “find on this page” option</p>

Main Categories	Specific Literacies
	<p>to locate specific keywords, and reviewing coloured words and hyperlinks).</p> <p>2.1.10 Students should be able to explore new search approaches and alternative strategies when a previous strategy has not worked (e.g. switching topics, visiting new websites, and trying new keywords).</p> <hr/> <p>2.2 Online reading comprehension:</p> <p>2.2.1 Students should understand the features of online texts represented in the range of symbols, cueing systems, and multiple-media formats (e.g. icons and animated symbols).</p> <p>2.2.2 Students should understand the nature of hypertext that entails new screen-based interactions between word, image and sound.</p> <p>2.2.3 Students should look for and work out the overall meaning of an online message that has been formulated in a complicated digital context.</p> <p>2.2.4 Students should focus on a particular question/problem/query to guide the online reading process.</p> <p>2.2.5 Students should try to activate their prior knowledge and make use of their background information while dealing with new online texts.</p> <p>2.2.6 Students should be able to read across an evolving range of online texts through skimming and scanning websites.</p> <p>2.2.7 Students should be able to navigate through links and connected pages to construct meanings that meet goals and/or answer questions.</p> <p>2.2.8 Students should be able to employ new reasoning and comprehension strategies to deal with nonlinear, interactive online texts.</p> <p>2.2.9 Students should be able to read purposefully, selectively and pragmatically within an online environment to accomplish their objectives (e.g. by selecting relevant information).</p>

Main Categories	Specific Literacies
	<p>2.2.10 Students should be able to make use of cues (e.g. captions, icons, hyperlinks, and interactive graphics) to identify relevant and important ideas.</p> <p>2.3 Critical Literacy Skills:</p> <p>2.3.1 Students should understand some important facts about websites that relate to reliability (e.g. the fact that each website has its own agenda, perspective, and bias).</p> <p>2.3.2 Students should be able to identify a website’s form (e.g. blog, forum, or advertisement) and general purpose (e.g. entertainment, educational, or commercial) in order to evaluate the reliability of online sources.</p> <p>2.3.3 Students should be able to identify the type of webpage content (e.g. a book, an article, a brochure, and an archive).</p> <p>2.3.4 Students should be critical and reflective by going beyond the simple decoding and comprehension of the online text.</p> <p>2.3.5 Students should be able to employ critical thinking skills and strategies while investigating web-based information to discover its accuracy, validity, reliability, and appropriateness to the task at hand.</p> <p>2.3.6 Students should make use of their background knowledge to evaluate what they read online and to question the relevant social, political, and ideological elements.</p> <p>2.3.7 Students should make critical, informed judgments about online information, which include: recognising bias, identifying the authors and their purposes, and distinguishing the commercial content from the academic one.</p> <p>2.3.8 Students should be able to use clues on a webpage that help with evaluating it as an information source (e.g. clues in a URL or web address that help with determining a website location and type).</p> <p>2.3.9 Students should be able to ask and answer evaluative questions such as: Is</p>

Main Categories	Specific Literacies
	<p>the information accurate? Is the author an authority on the subject? Is the information current and timely?</p> <p>2.3.10 Students should be able to compare and contrast the reliability of the information they find by investigating multiple sources on the same topic.</p> <p>2.4 Synthesising information and constructing knowledge:</p> <p>2.4.1 Students should be able to engage in a self-directed text construction process (i.e. building texts based on personal motivation and direction) to construct meaning from unrelated and disparate online texts.</p> <p>2.4.2 Students should be able to transform disconnected pieces of information into an original text.</p> <p>2.4.3 Students should be able to use a variety of tools and techniques to analyse, synthesise, translate, and manipulate digital content from the web in order to add value to the information.</p> <p>2.4.4 Students should be able to participate in and contribute to ongoing content-building conversations over the web.</p> <p>2.4.5 Students should be able to generate new perspectives and viewpoints by integrating information and synthesising ideas while they employ multiple online resources.</p> <p>2.4.6 Students should be able to make use of various Web-based electronic formats (e.g. WebPages, email, blogs, audio sources, interactive diagrams, and discussion boards) and unlimited resources to synthesise information and construct knowledge.</p>
<p>3-Accessing Web-based English Resources and</p>	<p>3.1 Making use of the Internet as an online library for English learning:</p> <p>3.1.1 Students should be aware of the potential of the Internet for EFL learners to access resources to support and reinforce their learning (e.g. traditional, face-</p>

Main Categories	Specific Literacies
<p>Materials</p>	<p>to-face learning as well as independent learning).</p> <p>3.1.2 Students should be able to access Web-based English language teaching/learning resources (e.g. EFL/TEFL/TESOL websites and forums and the Internet TESL Journal).</p> <p>3.1.3 Students should be able to evaluate useful types and forms of online English resources.</p> <p>3.2 Accessing authentic English material:</p> <p>3.2.1 Students should be able to access online authentic language materials and employ them to the task at hand.</p> <p>3.2.2 Students should be able to locate and utilise useful language teaching/learning websites devoted to TEFL (e.g. www.bbcarabic.com).</p> <p>3.2.3 Students should be able to access professional material, contacts, and resources to employ them in their learning and professional development.</p> <p>3.2.4 Students should be able to download different types of resources related to the English language and TEFL (e.g. articles, audio and video materials).</p>

Appendix E: Online Questionnaire of Web-based New Literacies as Administered to Participants

Web-based New Literacies Questionnaire

This questionnaire is directed to EFL teacher educators and EFL student teachers at the Colleges of Education in the Egyptian Universities. It includes a list of some Web-based new literacies that EFL student teachers might need in the context of their pre-service education programmes provided by their colleges of education. For organisational purposes, a taxonomy of three main categories (which include some sub-categories) underlies the items in the list.

Welcome to this online survey!

My name is Mahmoud Abdallah, PhD student at the School of Education & Lifelong Learning, University of Exeter, England, UK. In the questionnaire that follows, please answer some personal questions before proceeding to the main list. Any personal data you provide is confidential and will be used only for research purposes. Please rate each statement in the list based on the extent you think it is important for EFL student teachers in the context of their pre-service education programmes in Egypt. On a three-point scale, you have to rate each statement as either "not important", "quite important", or "very important" depending on your personal judgment. Please click **NEXT** at the bottom of each page to move to the next section, and click **SUBMIT** at the end after you completely finish. May I remind you that your answers should be as much accurate as possible as they will have a great influence on my research! Thanks in advance for your effort and kind cooperation!

There are 17 questions in this survey.

A Note On Privacy

This survey is anonymous.

The record kept of your survey responses does not contain any identifying information about you unless a specific question in the survey has asked for this. If you have responded to a survey that used an identifying token to allow you to access the survey, you can rest assured that the identifying token is not kept with your responses. It is managed in a separate database, and will only be updated to indicate that you have (or haven't) completed this survey. There is no way of matching identification tokens with survey responses in this survey.

[Load Unfinished Survey](#)

[Next >>](#)

[\[Exit and Clear Survey\]](#)

Web-based New Literacies Questionnaire

This questionnaire is directed to EFL teacher educators and EFL student teachers at the Colleges of Education in the Egyptian Universities. It includes a list of some Web-based new literacies that EFL student teachers might need in the context of their pre-service education programmes provided by their colleges of education. For organisational purposes, a taxonomy of three main categories (which include some sub-categories) underlies the items in the list.

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0-Personal information

This section is for identifying personal data, such as name, gender, and job.

Load Unfinished Survey

Next >>

[Exit and Clear Survey]

Web-based New Literacies Questionnaire

This questionnaire is directed to EFL teacher educators and EFL student teachers at the Colleges of Education in the Egyptian Universities. It includes a list of some Web-based new literacies that EFL student teachers might need in the context of their pre-service education programmes provided by their colleges of education. For organisational purposes, a taxonomy of three main categories (which include some sub-categories) underlies the items in the list.

0% 100%

0- Personal information

***Please write down your full name (Important note: If you are not comfortable with writing your full name, please write down instead initials or symbols that distinguish you and which you can easily remember).**

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0% 100%

0- Personal information

*

What is your gender?

Female

Male

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0% 100%

0-Personal information

Who are you?
I am ...

Choose one of the following answers


- Please choose..
- Please choose..
- EFL teacher educator**
- EFL student teacher (student in the English section)
- Other

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0%  100%

0-Personal information

***Which university do you work/study in?**

University of

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 100%

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0%  100%

0-Personal information

*

What is your specific job title?

Choose one of the following answers

- Please choose..
- Please choose..
- Student
- Demonstrator
- Assistant Lecturer
- Lecturer
- Assistant Professor
- Professor

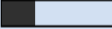
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0%  100%

0-Personal information

***What type of teacher education institution do you work/study in?**

Choose one of the following answers

Please choose..

Please choose..

College of Education

< Other

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Web-based New Literacies Questionnaire

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0%  100%

0-Personal information

***How many years of experience do you have in TEFL? (If you are a student, please choose 0)**

Choose one of the following answers

- 0
- less than 5 years
- 5 - 10 years
- more than 10 years

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0%  100%

1-Online Communication and Collaboration

This is the first category of Web-based new literacies. It includes 4 sub-categories:

- 1.1 Membership of online communities and the knowledge society:
- 1.2 Composing and writing online:
- 1.3 Meaning negotiation and idea sharing:
- 1.4 Online language practice:

For each statement *on the left-hand column*, please choose ONE of the following three options:

1. *Not Important* (if you think that it is NOT important at all, and therefore, should NOT be included in the Egyptian EFL education programme);
2. *Quite Important* (if you think that it is MODERATELY important, but NOT extremely important);
3. *Very Important* (if you think that it is EXTREMELY important and urgent for EFL student teachers).

Please consider this not only for this group, but *for all the coming questions* in the whole questionnaire.

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0%  100%

1-Online Communication and Collaboration

1.1 Membership of online communities and the knowledge society:

	Not Important	Quite Important	Very Important
1.1.1 Students should be able to employ appropriate Web-based communication tools.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.1.2 Students should be able to utilise the diverse modes of Web-based communication (e.g. synchronous/asynchronous and online/offline modes) appropriately.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.1.3 Students should be able to communicate cross-culturally (i.e. communicate with others from diverse cultures and geographical locations).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.1.4 Students should show respect and consideration to others during online interactions (i.e. netiquette).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.1.5 Students should be able to practice roles and responsibilities effectively in an online collaborative learning community (e.g. being critical online readers, creative online writers, constructors of knowledge, effective online communicators, active participants and negotiators).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.1.6 Students should participate effectively in online boards and forums (e.g. bulletin boards, discussion forums, and/or listserv discussions).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.1.7 Students should join online email discussion groups (e.g. Yahoo Groups and Google Groups).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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0% 100%

1-Online Communication and Collaboration

1.2 Composing and writing online:

	Not Important	Quite Important	Very Important
1.2.1 Students should be able to understand and identify ways of composing, revising, and editing online, using a word processor (e.g. Microsoft Word).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.2.2 Students should be aware of the interactive relationship between many components while composing an online message: the audience, their purpose of writing, the medium, and their message.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.2.3 Students should show some consideration for their online audience while they are writing (e.g. considering their interests, age, cultural background, educational level, and availability).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.2.4 Students should be able to reflect on the quality of their own writing and the language they use while using online writing tools (e.g. they should use a formal style when they approach academic staff through email).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.2.5 Students should be able to employ a range of online writing tools, whether synchronous (e.g. real-time chat) or asynchronous (e.g. email), for creative writing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.2.6 Students should be selective of sources during online writing (e.g. choosing the online documents and resources which sound appropriate to the writing purpose, and adapting them properly to the task at hand).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.2.7 Students should be able to express in their own words new knowledge derived from online resources to convey to others their personal understanding.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.2.8 Students should be able to share ideas with specialists and attain feedback from them (e.g. through email communication).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.2.9 Students should be able to practice			

Done

Internet | Protected Mode: On



writing, the medium, and their message.

1.2.3 Students should show some consideration for their online audience while they are writing (e.g. considering their interests, age, cultural background, educational level, and availability).

1.2.4 Students should be able to reflect on the quality of their own writing and the language they use while using online writing tools (e.g. they should use a formal style when they approach academic staff through email).

1.2.5 Students should be able to employ a range of online writing tools, whether synchronous (e.g. real-time chat) or asynchronous (e.g. email), for creative writing.

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1.2.7 Students should be able to express in their own words new knowledge derived from online resources to convey to others their personal understanding.

1.2.8 Students should be able to share ideas with specialists and attain feedback from them (e.g. through email communication).

1.2.9 Students should be able to practice cooperative, functional writing online (i.e. having purpose and objectives while writing to others) to promote the exchange of ideas, viewpoints and perspectives.

1.2.10 Students should be able to employ online tools of written communication (e.g. email and blogs) to practice online writing activities (e.g. answering others' questions, making new postings, and/or responding to others' postings).

1.2.11 Students should be able to compose and send effective online messages to influence, convince, and/or orient others.

1.2.12 Students should be able to embed some visual, hyper-textual, and/or multimodal elements (e.g. smileys and links) in their messages.

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Web-based New Literacies Questionnaire

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0%  100%

1-Online Communication and Collaboration

1.3 Meaning negotiation and idea sharing:

	Not Important	Quite Important	Very Important
1.3.1 Students should be able to employ the web as a publishing vehicle to express ideas and to share viewpoints as well as reflections with others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.3.2 Students should be able to transfer meaning across the different multi-dimensional systems made possible by the Web (e.g. hypertext, sound, and video).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.3.3 Students should be able to investigate Web-based conversations and attract collaborators to construct ideas and valuable knowledge (e.g. by reviewing others' online contributions in blogs and wikis and commenting on them).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.3.4 Students should engage themselves in discussions with experts in the field of English language teaching/learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.3.5 Students should be able to exchange ideas and negotiate meaning through online collaboration with others by providing and receiving feedback.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.3.6 Students should be able to engage themselves in an online open dialogue by using free online question/answer services (e.g. Yahoo Answers) to share their experiences with others and make use of others' experiences.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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0%  100%

1-Online Communication and Collaboration

1.4 Online language practice:

	Not Important	Quite Important	Very Important
1.4.1 Students should be able to use English for realistic, purposeful communication with people all over the world through Web-based communication tools and facilities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.4.2 Students should employ Computer-Mediated Communication (CMC) to increase their language use and practice, and to supplement face-to-face language learning.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.4.3 Students should critique and respond to the language input provided by others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
1.4.4 Students should be able to use reflective Web-based tools that foster learning English as a foreign language (e.g. blogs and wikis).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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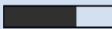
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0%  100%

2-Online Information Management and Knowledge Construction

This is the 2nd category of Web-based new literacies which involves the following 4 sub-categories:

- 2.1 Surfing the Web and locating information:
- 2.2 Online reading comprehension:
- 2.3 Critical Literacy Skills:
- 2.4 Synthesising information and constructing knowledge:

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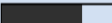
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	Not Important	Quite Important	Very Important
2.1.1 Students should understand the structure and organisation of the Web and how information is displayed on it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.1.2 Students should understand the advanced features, facilities and services enabled by search engines (e.g. Google translation, Google books, videos, and images).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.1.3 Students should be able to identify an information need or a learning need and decide which online resources to use to address that need.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.1.4 Students should be able to use a variety of search tools and strategies to find information that is appropriate to the task at hand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.1.5 Students should be able to effectively surf the web to locate relevant and useful information using prominent search engines (e.g. Yahoo, Google, and Altavista).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.1.6 Students should be able to use effective techniques for organising keywords (e.g. using Boolean operators like AND, OR, and "+" to indicate relationships, and using quotation marks for locating exact phrases).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.1.7 Students should be able to deal effectively with searches (e.g. by rapidly selecting the most relevant results and navigating to the most reliable information resource).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.1.8 Students should be able to make rapid navigational decisions as to whether to read the current page of information, pursue links internal or external to the page, or perform another search.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.1.9 Students should be able to employ strategies for finding the most important or useful information within a website (e.g. using the "find on this page" option to locate specific keywords, and reviewing coloured words and hyperlinks).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.1.10 Students should be able to explore new search approaches and alternative strategies when a previous strategy has not worked (e.g. switching topics, visiting new websites, and trying new keywords).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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0%  100%

2-Online Information Management and Knowledge Construction

2.2 Online reading comprehension:

	Not Important	Quite Important	Very Important
2.2.1 Students should understand the features of online texts represented in the range of symbols, cueing systems, and multiple-media formats (e.g. icons and animated symbols).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.2.2 Students should understand the nature of hypertext that entails new screen-based interactions between word, image and sound.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.2.3 Students should look for and work out the overall meaning of an online message that has been formulated in a complicated digital context.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.2.4 Students should focus on a particular question/problem/inquiry to guide the online reading process.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.2.5 Students should try to activate their prior knowledge and make use of their background information while dealing with new online texts.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.2.6 Students should be able to read across an evolving range of online texts through skimming and scanning websites.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.2.7 Students should be able to navigate through links and connected pages to construct meanings that meet goals and/or answer questions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.2.8 Students should be able to employ new reasoning and comprehension strategies to deal with nonlinear, interactive online texts.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.2.9 Students should be able to read purposefully, selectively and pragmatically within an online environment to accomplish their objectives (e.g. by selecting relevant information).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.2.10 Students should be able to make use of cues (e.g. captions, icons, hyperlinks, and interactive graphics) to identify relevant and important ideas.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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	Not Important	Quite Important	Very Important
2.3.1 Students should understand some important facts about websites that relate to reliability (e.g. the fact that each website has its own agenda, perspective, and bias).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.3.2 Students should be able to identify a website's form (e.g. blog, forum, or advertisement) and general purpose (e.g. entertainment, educational, or commercial) in order to evaluate the reliability of online sources.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.3.3 Students should be able to identify the type of webpage content (e.g. a book, an article, a brochure, and an archive).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.3.4 Students should be critical and reflective by going beyond the simple decoding and comprehension of the online text.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.3.5 Students should be able to employ critical thinking skills and strategies while investigating web-based information to discover its accuracy, validity, reliability, and appropriateness to the task at hand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.3.6 Students should make use of their background knowledge to evaluate what they read online and to question the social, political, and ideological elements there.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.3.7 Students should make critical, informed judgments about online information, which include: recognising bias, identifying the authors and their purposes, and distinguishing the commercial content from the academic one.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.3.8 Students should be able to use clues on a webpage that help with evaluating it as an information source (e.g. clues in a URL or web address that help with determining a website location and type).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.3.9 Students should be able to ask and answer evaluative questions such as: Is the information accurate? Is the author an authority on the subject? Is the information current and timely?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.3.10 Students should be able to compare and contrast the reliability of the information they find by investigating multiple sources on the same topic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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0% 100%

2-Online Information Management and Knowledge Construction

2.4 Synthesising information and constructing knowledge:

	Not Important	Quite Important	Very Important
2.4.1 Students should be able to engage in a self-directed text construction process (i.e. building texts based on personal motivation and direction) to construct meaning from unrelated and disparate online texts.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
2.4.2 Students should be able to transform disconnected pieces of information into an original text.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.4.3 Students should be able to use a variety of tools and techniques to analyse, synthesise, translate, and manipulate digital content from the web in order to add value to the information.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.4.4 Students should be able to participate in and contribute to ongoing content-building conversations over the web.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.4.5 Students should be able to generate new perspectives and viewpoints by integrating information and synthesising ideas while they are employing multiple online resources.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.4.6 Students should be able to make use of various Web-based electronic formats (e.g. WebPages, email, blogs, audio sources, interactive diagrams, and discussion boards) and unlimited resources to synthesise information and construct knowledge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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0% 100%

3-Accessing Web-based English Resources and Materials

This is the 3rd category which involves 2 sub-categories:
3.1 Making use of the Internet as an online library for English learning:
3.2 Accessing authentic English material:

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0% 100%

3-Accessing Web-based English Resources and Materials

3.1 Making use of the Internet as an online library for English learning:

	Not Important	Quite Important	Very Important
3.1.1 Students should be aware of the potential of the Internet for EFL learners to access resources to support and reinforce their learning (e.g. traditional, face-to-face learning as well as independent learning).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.1.2 Students should be able to access Web-based English language teaching/learning resources (e.g. EFL/TEFL/TESOL websites and forums and the Internet TESL Journal).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.1.3 Students should be able to evaluate useful types and forms of online English resources.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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0% 100%

3-Accessing Web-based English Resources and Materials

3.1 Making use of the Internet as an online library for English learning:

	Not Important	Quite Important	Very Important
3.1.1 Students should be aware of the potential of the Internet for EFL learners to access resources to support and reinforce their learning (e.g. traditional, face-to-face learning as well as independent learning).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.1.2 Students should be able to access Web-based English language teaching/learning resources (e.g. EFL/TEFL/TESOL websites and forums and the Internet TESL Journal).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.1.3 Students should be able to evaluate useful types and forms of online English resources.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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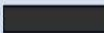
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[\[Exit and Clear Survey\]](#)

Web-based New Literacies Questionnaire

This questionnaire is directed to EFL teacher educators and EFL student teachers at the Colleges of Education in the Egyptian Universities. It includes a list of some Web-based new literacies that EFL student teachers might need in the context of their pre-service education programmes provided by their colleges of education. For organisational purposes, a taxonomy of three main categories (which include some sub-categories) underlies the items in the list.

0%  100%

3-Accessing Web-based English Resources and Materials

3.2 Accessing authentic English material:

	Not Important	Quite Important	Very Important
3.2.1 Students should be able to access online authentic language materials and employ them to the task at hand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.2.2 Students should be able to locate and utilise useful language teaching/learning websites devoted to TEFL (e.g. www.bbcarabic.com).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.2.3 Students should be able to access professional material, contacts, and resources to employ them in their learning and professional development.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.2.4 Students should be able to download different types of resources related to the English language and TEFL (e.g. articles, audio and video materials).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[Resume Later](#)

[<< Previous](#)

[Submit](#)

[\[Exit and Clear Survey\]](#)

Done

Internet | Protected Mode: On

  100%

Thank you

Your survey responses have been recorded.

[Close this Window](#)

Done

Internet | Protected Mode: On

100%

Appendix F: Semi-Structured Interviews Guide

The interview revolve around some main questions on the Web-based facilities that might be beneficial to EFL student teachers in the context of their pre-service education programmes provided by the colleges of education in the Egyptian universities:

Note: Participants are told that Web-based facilities are defined in the context of the study as “those free Web-based applications, tools, and resources (e.g. email and Google translation) enabled by the Internet for users to employ for a variety of communication, entertainment, and academic purposes in the context of English language learning”

Invitation E-mail

Dear....

My name is Mahmoud Abdallah, PhD student at the Graduate School of Education, College of Social Sciences and International Studies, University of Exeter, England, UK. I'm conducting a design study that seeks to improve the literacy practices of EFL student teachers by integrating Web-based new literacies into their teacher education programme at Assiut University College of Education in Egypt. As an essential requirement during this stage, an interview should be conducted with EFL teacher educators and student teachers at the colleges of education in Egypt. The aim of this interview is to identify those Web-based facilities that can be useful for English language learning in the context of EFL teacher education. For the purposes of the study, Web-based facilities are defines as: *“those free Web-based applications, tools, and resources (e.g. email and Google translation) enabled by the Internet for users to employ for a variety of communication, entertainment, and academic purposes in the context of English language learning”*.

Therefore, I'd like to conduct an interview with you because I'm sure that you will provide me with much insight and ideas in this respect. If you are happy to participate, please kindly email me back to let me know the most convenient time for you to conduct this interview that might take between 20-30 minutes as well as the most appropriate means of communication (i.e. email, online chat, and telephone) now that the interview won't be face-to-face.

Your participation as an EFL teacher educator or EFL student teacher will be extremely important during this stage of research as your viewpoints will help me so much with constructing a theoretical framework to be used for designing a small interventional programme for EFL student teachers at Assiut University College of Education. Please be assured that any personal data or experiences provided in the interview will be treated anonymously and confidentially and will be used only for research purposes. If you need to discuss any further aspects of the study or the interview, or if you think that you need to do an open interview or chat to know more about my research and purpose before going through that more formal interview, please don't hesitate to contact me at: mms203@exeter.ac.uk or msayed40@yahoo.com. I very much hope that you will feel able to participate. May I thank you, in advance, for your valuable cooperation, time, and great effort!

Yours sincerely,

Mahmoud

Main Guiding Questions

The questions in this interview revolve around the following main ideas:

1. Listing the names of these specific facilities that can be useful for EFL student teachers in the context of their education programme;
2. Identifying why and how these facilities can be useful in this context;
3. Identifying the affordances and features that these facilities might have for English language learning/teaching;
4. Citing some real examples of any experience that EFL teacher educator or student teachers might have had with these facilities in an academic context;
5. Identifying the feasibility of integrating such facilities into the pre-service EFL teacher education programmes in the Egyptian Colleges of Education and any related concerns or difficulties attached to this process.

Questions can be like:

1- Generally speaking, do you think that the Internet is useful at all for learning or teaching English as a foreign language? Why?

2- By Web-based facilities I mean all those free web-based applications, tools and resources that could be useful in the context of ELT: What facilities do you think are useful for learning English as a foreign language?

3- Why do you think they are useful? (Participants are elicited to give real examples based on the specific facilities they mention).

4- How are they useful in your opinion? (Participants are elicited to give real examples based on the specific facilities they mention).

5- Please give some examples on practical applications of these facilities by relating them to the main language aspects and skills.

6- Please think of this list of facilities (e.g. wikis, discussion boards, email, chat rooms, etc.) and tell me whether they can be useful in this context.

7- Are there any other facilities that you regard as useful?

8- Have you ever used any of these facilities for real learning/teaching purposes? If so, please tell me more about this (e.g. how and why you used them and why they were useful).

9- What are, in your opinion, the features and affordances that make such facilities useful in the context of English language teaching/learning?

10- To what extent do you think it is feasible to integrate these Web-based facilities into the pre-service EFL education programme? Are there any difficulties?

Appendix G: Sample of an Interview Script

Interview with Dr Sally (pseudonym) (15/07/2009 16:43)

I-Open Interview

Me: *Hi Dr Sally...Are you ready now?*

Dr Sally: Yes

Me: *This is an online interview that takes between 30-60 minutes during which you have the right to withdraw at anytime (e.g. if you feel tired).*

Dr Sally: It is ok

Me: *Any information you exchange with me is extremely confidential and will never be used for any purposes other than research.*

Dr Sally: Sure about that

Me: *As mentioned in my invitation email, this interview is about Web-based facilities...In this context, and for the specific purposes of the study, I define these facilities as “the free Web-based applications, tools, and resources (e.g. email and Google translation) enabled by the Internet for users to employ for a variety of communication, entertainment, and academic purposes in the context of English language learning”...Please kindly keep this definition in mind.*

Dr Sally: Ok

Me: *Well, now, do you think that the Internet (or the Web) has anything to offer for our EFL student teachers in the Egyptian universities?*

Dr Sally: Oh yes... The internet has a great deal to offer

Me: *Yea. In what way, do you think?*

Dr Sally: Like you said the tools that the student -teachers can use to surf the web and get whatever information can help them to enhance their knowledge and experience

Me: *So, you regard enhancing knowledge and experience as important in this regard. Ok, then, has the Web anything to do with developing language skills for those Ss?*

Dr Sally: Student-teachers should in the first instance be taught about these facilities the internet can offer and how to use them

Me: *Great! This is the main objective of the small interventional programme I'm planning to experiment in Egypt!*

Dr Sally: Oh yes. Through contact with each others and with their tutors, they can feel comfortable in using the language, and thus, their language can be improved a lot. So as I understand now you plan to make something like orientation course for the student-teachers to orientate them with the whole enterprise.

Me: *Not orientation...but a theoretical framework based on the new literacies list and a qualitative analysis of interview data. Based on this theoretical framework, a small intervention can be designed so as to test the theor. faremwork and modify it accordingly.*

Dr Sally: In my opinion there are a lot of preliminary steps that can ensure the best use of the web

Me: *Yes.*

Dr Sally: First, to what extent you are sure that these student-teachers have ample access to computer sets? Second, are they familiar with the computer?

Me: *Ok. That's why I've designed a questionnaire that addresses such access and basic computer and Internet skills issues to be administered to them in October inshallah.*

Dr Sally: At Assiut Faculty of Education, we have a computer lab whose capacity is not more than 40.

Me: *Yes.*

Dr Sally: So it means that only those student-teachers who are familiar with computers will be the target of your study which means the group of the study will be selected not at random but intentionally and selectively?

Me: *Exactly...purposive sampling! I've a rationale here. Now that there's no basic Computer and Internet skills short course because of time limitations, my target will be those students who are familiar with Pc's and Internet and who master the basic skills required for being online (e.g. managing email, using search engines, etc.)*

Dr Sally: Now that these student-teachers have already been using the computer may be at their homes or wherever, do you think we can start by asking them in what way you use the computer?

Me: *Maybe. I've already designed questions in my questionnaire that relate to frequency of using Pc's at home and purposes of using them...how many hours a day/a week...as well as some statements that indicate whether they have positive attitudes towards the web or negative ones, and so on! This is not intended to disadvantage some students or to prefer certain categories to others... But the main reason is that I can't deliver 2 courses...a technical course and a literacy one! Got my point?*

Dr Sally: Ok...As student-teachers at teachers education institutes, the major aim of the education programme is to prepare these students for their profession...Shall we start by asking ourselves what do we really want these students to have or to be?

Me: *Yes, that's why I made a list of those new literacies that they might need...as a confirmatory procedure, I displayed the list (in the form of an online survey) to many EFL student teachers and teacher educators just to contextualise it in the Egyptian context and to see whether my taxonomy is appropriate to the Egyptian context or not!*

Dr Sally: Again my theory is that what do we expect from these student-teachers and which web-based literacies are compatible with these expectations? ... I'd like to get to your points more accurately!

Me: *Oh...I see your point...It's a very important question, indeed! I addressed this part in my identification of the problem of the study...Based on online email interactions with teacher educators, I reached the conclusion that students' literacy practices are still poor because they are not compatible with new literacy tools and technologies...Still these literacy practices are paper-based.*

Dr Sally: All right. Shall we say that the education programme will be some sort of a blend?

Me: *Exactly...I'm after blended instruction that relates new technologies to the fundamental purposes and objectives of the programme...So, the technology here will not remove previous practices, but rather will complement and support them by adding new dimensions that cope with what's going on in the wider society and this argument is closely related to socio-cultural theory, especially the ZPD concept.*

Dr Sally: So part of the course will be handled in the traditional class and the other part will be web-based or for each part students should acquire the skills of how to gather knowledge and skills from both media and come to discuss their knowledge with the tutor?

Me: *Yes, a sort of.*

II-Semi-structured Interview

Me: *Now, if you don't mind, we can return back to our facilities...I'd like to know your conceptualised list of web-based facilities (i.e. any tools, applications, resources, and websites) which you regard as beneficial to EFL student teachers while learning English as a foreign language in their pre-service training programme!*

Dr Sally: In order now to be more specific, the tools could be both synchronous and asynchronous. Students may use the email and the forum to collaborate and exchange knowledge and experiences. This is of course missing in the traditional classes. Another tool is to be able to surf the websites the teacher educators provide them...Students may not have any idea about which website could be very useful for the purposes of their studies.

Me: *Yes, great! let's begin with email. Why do you think that email is useful? How beneficial it might be in this context?*

Dr Sally: Ok talking about the benefits of email. Actually, the email has proved to be very useful in a number of ways: 1. It enhances the students' writing skills 2. It gives the students chance to socialize and get to know other students' cultures 3. It allows for collaborative work that can help tackle some difficulties with understanding basic concepts of the course...Students can get help from each others while they are at home. They can cooperate in planning for teaching, for example.

Me: *Great...Does this also involve any interaction between Ss and tutors?*

Dr Sally: Yes, it mainly involves interaction between students and teachers...But, I'd like to point out that the email can allow cooperation and interaction not only among our own student-teachers at Assiut Faculty of Education, but also giving the student-teachers the chance to contact other Arab students in different countries... We can benefit from their experience and we should be able to select whatever suits our situation.

Me: *That's true...Ok, let's move to search engines, if you don't mind! Which search engines do you use and regard as useful?*

Dr Sally: About the search engines: Surfing the web by using for example Google as it is proved to be most dominant in the fields of searching and learning

Me: *Google...what facilities/features that distinguish it?*

Dr Sally: Google actually provide the facilities of offering the information and give the translation on demand in the language requested

Me: *Yea...Great! What else?*

Dr Sally: Students should be able to enter the keywords that would lead them to the information required.

Me: *You mean they should know how to handle keywords using procedures or techniques like Boolean operators (e.g. "+", AND, OR, "-", etc.)?*

Dr Sally: Oh, yes...I myself use that. Also Google can provide different forms of materials that is why students should be able to transfer the material from one form to the other.

Me: *Excuse me, I can't get that. Could you elaborate more on this?*

Dr Sally: Yes I mean to change the document from one form such as Html To Pdf

Me: *I see! Yes, fair enough! Anything else about search engines?*

Dr Sally: Well most of us are familiar with Google as the most famous search engine Can you give me a clue for another search engine?

Me: *Ok. Yahoo, Altavista*

Dr Sally: Yes I have been using and I have advised my students to resort to Yahoo for getting some video taped lessons.

Me: *I see...So, you regard a facility like yahoo videos as important for your students?*

Dr Sally: Yes, but the students in any case should be critical thinkers...They should be able to evaluate the materials they get as a result of their search.

Me: *Now let's talk about forums, if you don't mind...How can forums be useful for English learners?*

Dr Sally: Ok forums is becoming very popular among teachers in Egypt. Some teachers told me that some linguistic hazards can be discussed with language experts, they can exchange the views and ideas about practical issues.

Me: *Fine*

Dr Sally: The most important thing is that we should enhance our students' knowledge and awareness about all these facilities.

Me: *Now, a very important thing that relates to Blogs...Can you talk to me about your experience with the Blog you've created "Quality Teacher Group" and how useful you found it?*

Dr Sally: In actual fact blogs in light of my experience have been way for teachers to vent their emotions and to express their thoughts about many issues

Me: *Yea*

Dr Sally: The teachers have been facing many difficulties with regard to the new version of Hello so they were trying to get ideas and pieces of advice as to how to manage the demands of the course given the many limitations of the school system

Me: *Good example!*

Dr Sally: Blogs can be a good tool to help boost the student-teachers' professional competencies, But they should be well directed by the instructors

Me: *You mean that they should be instructor-led/controlled so as to limit misuse.*

Dr Sally: Any web-based learning must be well planned and well directed...All students should work according to a schedule or a scheme.

Me: *and direct participants to the topics? Absolutely, I agree with you! and that's why many students fail to make the best use of the web though they possess the minimum or basic skills and competencies required...There's no guidance...no direction...no organised way of using it for academic purposes*

Dr Sally: That's right. I noticed that the members of the High Quality English teachers were trying to discuss many different issues they were very enthusiastic, so I had to direct them.

Me: *and this is the RATIONALE that underlies my interventional programme!*

Dr Sally: Another rationale is the construction of knowledge. Although we have to direct the students' efforts yet we must allow a great deal of the constructivist approach to learning.

Me: *Yea...absolutely right!*

Dr Sally: Students should be directed towards achieving specific aims but in their own way each according to whatever facility appeals most to his interest and his skills and style of learning

Me: *Yes, seems very reasonable...Thanks so much for this tip! I think that Vygotsky's concept of ZPD is closely relevant here, isn't it?*

Dr Sally: Web-based learning will definitely solve many psychological problems some students are experiencing...Feeling good at something would help students to cope better with society.

Me: *Because social interaction online will help students advance to the desired learning stage, while being supported by knowledgeable adults or others.*

Dr Sally: Yes, I like to read Vygotsky's writings.

Me: *For example, I feel more confident when I talk with other people online...or through email.*

Dr Sally: Like I said before it is way to vent your thoughts and being happy to have someone who shares your experiences...I hope I have fulfilled some of your aims I'll be trying to contact you again, may I excuse myself now

Me: *Of course, but before you leave, you've done a great job. But still there's a VERY IMPORTANT question which you might answer in an email and take your time to reflect on it*

Dr Sally: No. It was a pleasure... But my husband is ready now for a walk My best regards...So I'll check the mail and answer soon

Me: To what extent you think it's feasible to integrate such facilities into the pre-service EFL teacher education programme in the Egyptian Colleges of Education and any related concerns or difficulties attached to this process? ...This is the question which I'm sure you will give me a terrific account on. Please enjoy your walk and have a nice day and thanks again so much for the interesting account you kindly provided throughout this interview.

Dr Sally: (email reply) Dear Mahmoud. As for the feasibility of integrating web-based facilities in teachers' education programmes, I would say that it is quite feasible provided that:

1. Teachers educators themselves should be fully aware of the rationale behind using the web facilities in preparing student-teachers for their future career. The trainers themselves should have the skills of using such facilities. We should inculcate and spread the culture of web-based education.
2. Most lecturing rooms at Assiut Faculty of Education are equipped with the devices of data show and computer sets that can help make this feasible.
3. It is feasible to integrate and blend e-learning in our Education system, especially our students have studied a great deal about the uses of computers in learning during their primary, preparatory and secondary education.
4. Methodology courses are divided into two major parts, one part is theoretical and the other part is practical, which can allow providing the students with both knowledge and skills of using the web in improving and enhancing their professional and language skills.

IN brief, time, equipment, awareness would help in integrating web-based education.

My best regards and best wishes

Appendix H: Screening Questionnaire

(Basic Computer/Internet Skills & Attitudes Questionnaire)

Hello dear student!

My name is Mahmoud Abdallah. I work as Assistant Lecturer of Curriculum & TEFL Methodology at Assiut University College of Education. Currently, I'm in England doing my PhD in education and English teaching at the University of Exeter, Devon, England, UK. My e-mail address is: *msayed40@yahoo.com*

This is a questionnaire directed to all 4th year English-section students. My aim is to get information on your basic computer and Internet knowledge and skills as well as your attitudes towards using the Internet. This information will be used for screening purposes in the context of designing a course or a programme on: *Using the Internet for English Learning* that will be delivered at Assiut University College of Education towards the start of the 2nd semester in February 2010.

Please be as much **honest and accurate** as possible while completing the sections below as any information you provide will be of significant importance. Also, keep in mind that there will be some prizes based on this questionnaire as rewards for your participation and which will be distributed in February 2010 (for more information on this, please e-mail me at: *msayed40@yahoo.com* or *mms203@exeter.ac.uk*). May I thank you so much in advance for your kind cooperation!

Section A: Personal Data

In this section, you are kindly requested to provide personal data that will never be revealed to anyone else. Mainly, this data will be used for future correspondence with Providing me with your name and e-mail address will make it possible for me to contact you to arrange for a meeting in February to get your prize and know more about my course.

1. Please write down your full name in Arabic as clearly as possible (obligatory):

.....

2. Gender: Male Female

3. Please write down your e-mail address (if you have one):

.....

Section B: Access to Computer and Internet (Please be *honest* in the best possible way)

4. Do you have a computer at home? Yes No
5. If yes, do you have an Internet connection? Yes No
6. Do you have an e-mail account (e-mail address)? Yes No
7. If yes, is it a yahoo e-mail account? Yes No
8. If you have access to a computer, how many hours in average do you work on it everyday?
- More than 5 hours Between 2-5 hours Between 1-2 hours Less than 1 hour Never
9. If you are currently using the Internet, for how many years have you been using it?
- More than 5 years Between 2-5 years Between 1-2 years Less than 1 year Never
10. How frequently do you use the Internet?
- Almost everyday Once a week Once a month Rarely Never
11. How frequently do you check your e-mail?
- Almost everyday Once a week Once a month Rarely Never/No e-mail

Section C: Attitudes towards the Internet

Please read the statements below to indicate to what extent you **agree** or **disagree** with each by ticking ONE of the 5 boxes that best expresses your real attitude (Please tick **Undecided** if you cannot decide):

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
12. I believe that the Internet plays an essential role in my life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Being online is part of my daily routine.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. I feel annoyed when my teacher asks me to search for something on the Web.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. I enjoy reading books and newspaper more than reading online.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I encourage others to use the Internet for a variety of purposes (learning, entertainment, news, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. I think that using the Internet helps me with my study.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. I see no point in learning about the Internet in our training programme at the College.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. I exchange useful websites with others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. I use the Internet for study purposes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. When there is something new that I want to know about, the first thing I do is search for it online.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Using the Internet develops my thinking.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. The Internet has made my life easier.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

24. Using the Internet increases my motivation to learn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. Using the Internet helps me to develop my personality.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. I consider using the Internet a waste of time.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. I see no difference between the Internet and any other information resources such as books.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section D: Basic Computer and Internet Skills

For each question below, please choose “yes”, “no”, or “to some extent” (please be *as much honest as possible* and choose the answer that best describes your real ability):

	Yes	No	To some extent
28. Can you switch on/off a computer?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Can you use the computer mouse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. Can you work on Windows system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. Are you able to use Microsoft Word?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. Can you copy, cut, paste and delete text?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. Can you create folders?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. Can you name and save files?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. Can you use Web browsers (e.g. Internet Explorer)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. Can you use search engines (e.g. Yahoo and Google) to locate online information?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

37. Can you compose, edit and send e-mail messages?

Section E: Knowledge Test

Please choose the right answer:

38. “WWW” refers to:
a) the Web b) an e-mail software c) a search engine d) online writing
39. The is the most important piece in any computer.
a) scanner b) mouse c) processor d) keyboard
40. If you want to write a CAPITAL letter using the keyboard, you should hold thekey while pressing the letter key.
a) CTRL b) ALT c) END d) SHIFT
41. On any computer, we can save all the websites we prefer in:
a) Favorites b) History c) Tools d) File
42. While using the Internet, I click on “Back” to:
a) see homepage b) save a webpage c) see a visited webpage d) delete history
43. The place where we can write a URL is called
a) Address bar b) Status Bar c) Menu Bar d) Title bar

Finished! Thanks so much for your time and effort!

Mahmoud

Appendix I: Descending Means and Frequencies of Items in the Web-based New Literacies List

A. Order of Items Based on Descending Means

<i>Items</i>	<i>Number</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Deviation</i>
3.2.2	50	1	2	1.86	.35
3.1.1	50	1	2	1.86	.35
1.2.1	50	1	2	1.84	.37
2.2.9	50	0	2	1.84	.47
2.1.5	50	1	2	1.82	.39
3.2.4	50	0	2	1.80	.49
1.4.1	50	1	2	1.80	.40
1.1.4	50	1	2	1.80	.40
2.2.5	50	1	2	1.78	.42
3.1.2	50	0	2	1.78	.46
1.1.1	50	1	2	1.76	.43
2.3.6	50	0	2	1.76	.48
2.1.4	50	0	2	1.74	.49
2.3.5	50	0	2	1.74	.49
3.2.1	50	1	2	1.74	.44
3.1.3	50	1	2	1.72	.45
1.2.7	50	0	2	1.72	.49
2.3.9	50	0	2	1.70	.51
1.4.2	50	0	2	1.70	.54
2.1.3	50	0	2	1.68	.51
2.3.7	50	0	2	1.68	.55
2.3.10	50	1	2	1.66	.48
2.2.10	50	0	2	1.64	.52

<i>Items</i>	<i>Number</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Deviation</i>
1.2.2	50	0	2	1.64	.53
1.3.4	50	0	2	1.64	.56
2.1.9	50	0	2	1.62	.60
2.1.7	50	0	2	1.62	.53
2.4.6	50	0	2	1.62	.57
1.3.5	50	1	2	1.62	.49
3.2.3	50	0	2	1.62	.53
2.1.10	50	0	2	1.60	.57
2.4.3	50	0	2	1.60	.64
2.2.6	50	0	2	1.60	.53
1.2.4	50	0	2	1.60	.53
2.3.3	50	0	2	1.60	.61
1.2.6	50	0	2	1.60	.57
1.1.5	50	0	2	1.60	.57
1.2.3	50	0	2	1.58	.58
1.1.3	50	0	2	1.58	.61
2.3.4	50	0	2	1.56	.58
2.2.7	50	0	2	1.56	.58
2.1.2	50	0	2	1.56	.61
1.2.10	50	0	2	1.54	.58
1.2.8	50	0	2	1.54	.58
2.3.2	50	0	2	1.52	.65
2.1.6	50	0	2	1.52	.65
1.2.9	50	0	2	1.52	.58
1.1.6	50	0	2	1.50	.58
1.1.2	50	0	2	1.50	.58

<i>Items</i>	<i>Number</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Deviation</i>
2.2.8	50	0	2	1.48	.61
1.4.4	50	0	2	1.48	.61
2.4.1	50	0	2	1.48	.61
2.2.4	50	0	2	1.48	.68
1.2.11	50	0	2	1.48	.61
2.4.5	50	0	2	1.44	.67
1.3.1	50	0	2	1.44	.61
1.3.3	50	0	2	1.42	.67
1.4.3	50	0	2	1.40	.64
2.4.2	50	0	2	1.38	.60
2.1.1	50	0	2	1.38	.78
1.3.6	50	0	2	1.38	.75
1.2.5	50	0	2	1.38	.57
2.4.4	50	0	2	1.36	.63
2.1.8	50	0	2	1.36	.66
2.3.1	50	0	2	1.34	.69
2.2.1	50	0	2	1.32	.65
2.2.3	50	0	2	1.32	.77
1.3.2	50	0	2	1.26	.66
2.3.8	50	0	2	1.22	.74
2.2.2	50	0	2	1.22	.74
1.1.7	50	0	2	1.20	.70
1.2.12	50	0	2	.98	.74

B. Frequencies of Items Based on Importance

1.1.1 Employ Web-based communication tools

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Quite Important	12	24.0	24.0	24.0
	Very Important	38	76.0	76.0	100.0
	Total	50	100.0	100.0	

1.1.2 Utilise diverse modes of communication

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	2	4.0	4.0	4.0
	Quite Important	21	42.0	42.0	46.0
	Very Important	27	54.0	54.0	100.0
	Total	50	100.0	100.0	

1.1.3 Communicate cross-culturally

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	3	6.0	6.0	6.0
	Quite Important	15	30.0	30.0	36.0
	Very Important	32	64.0	64.0	100.0
	Total	50	100.0	100.0	

1.1.4 Show respect and consideration (netiquette)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Quite Important	10	20.0	20.0	20.0
	Very Important	40	80.0	80.0	100.0
	Total	50	100.0	100.0	

1.1.5 Practice roles and responsibilities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	2	4.0	4.0	4.0
	Quite Important	16	32.0	32.0	36.0
	Very Important	32	64.0	64.0	100.0
	Total	50	100.0	100.0	

1.1.6 Participate effectively in online boards and forums

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	2	4.0	4.0	4.0
	Quite Important	21	42.0	42.0	46.0
	Very Important	27	54.0	54.0	100.0
	Total	50	100.0	100.0	

1.1.7 Join Online email discussion groups

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	8	16.0	16.0	16.0
	Quite Important	24	48.0	48.0	64.0
	Very Important	18	36.0	36.0	100.0
	Total	50	100.0	100.0	

1.2.1 Understand and identify ways of composing, revising

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Quite Important	8	16.0	16.0	16.0
	Very Important	42	84.0	84.0	100.0
	Total	50	100.0	100.0	

1.2.2 Aware of interactive relationship between many comp

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	1	2.0	2.0	2.0
	Quite Important	16	32.0	32.0	34.0
	Very Important	33	66.0	66.0	100.0
	Total	50	100.0	100.0	

1.2.3 Show some consideration for their online audience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	2	4.0	4.0	4.0
	Quite Important	17	34.0	34.0	38.0
	Very Important	31	62.0	62.0	100.0
	Total	50	100.0	100.0	

1.2.4 Reflect on the quality of their own writing and language

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	1	2.0	2.0	2.0
	Quite Important	18	36.0	36.0	38.0
	Very Important	31	62.0	62.0	100.0
	Total	50	100.0	100.0	

1.2.5 Employing a range of online writing tools for creative...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	2	4.0	4.0	4.0
	Quite Important	27	54.0	54.0	58.0
	Very Important	21	42.0	42.0	100.0
	Total	50	100.0	100.0	

1.2.6 Should be selective of resources during online writing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	2	4.0	4.0	4.0
	Quite Important	16	32.0	32.0	36.0
	Very Important	32	64.0	64.0	100.0
	Total	50	100.0	100.0	

1.2.7 Express in their own words knowledge derived from

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	1	2.0	2.0	2.0
	Quite Important	12	24.0	24.0	26.0
	Very Important	37	74.0	74.0	100.0
	Total	50	100.0	100.0	

1.2.8 Share ideas with specialists and get feedback

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	2	4.0	4.0	4.0
	Quite Important	19	38.0	38.0	42.0
	Very Important	29	58.0	58.0	100.0
	Total	50	100.0	100.0	

1.2.9 Practice cooperative, functional writing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	2	4.0	4.0	4.0
	Quite Important	20	40.0	40.0	44.0
	Very Important	28	56.0	56.0	100.0
	Total	50	100.0	100.0	

1.2.10 Employ online tools for written communication

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	2	4.0	4.0	4.0
	Quite Important	19	38.0	38.0	42.0
	Very Important	29	58.0	58.0	100.0
	Total	50	100.0	100.0	

1.2.11 Compose and send effective online messages

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	3	6.0	6.0	6.0
	Quite Important	20	40.0	40.0	46.0
	Very Important	27	54.0	54.0	100.0
	Total	50	100.0	100.0	

1.2.12 Embed in online messages some visual, hypertext, etc.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	14	28.0	28.0	28.0
	Quite Important	23	46.0	46.0	74.0
	Very Important	13	26.0	26.0	100.0
	Total	50	100.0	100.0	

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	3	6.0	6.0	6.0
	Quite Important	22	44.0	44.0	50.0
	Very Important	25	50.0	50.0	100.0
	Total	50	100.0	100.0	

1.3.2 Transfer meaning across different multi-dimensional

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	6	12.0	12.0	12.0
	Quite Important	25	50.0	50.0	62.0
	Very Important	19	38.0	38.0	100.0
	Total	50	100.0	100.0	

1.3.3 Investigate Web-based conversations and attract

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	5	10.0	10.0	10.0
	Quite Important	19	38.0	38.0	48.0
	Very Important	26	52.0	52.0	100.0
	Total	50	100.0	100.0	

1.3.4 Engage themselves in discussions with experts

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	2	4.0	4.0	4.0
	Quite Important	14	28.0	28.0	32.0
	Very Important	34	68.0	68.0	100.0
	Total	50	100.0	100.0	

1.3.5 Exchange ideas and negotiate meaning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Quite Important	19	38.0	38.0	38.0
	Very Important	31	62.0	62.0	100.0
	Total	50	100.0	100.0	

1.3.6 Engage themselves in an online open dialogue

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	8	16.0	16.0	16.0
	Quite Important	15	30.0	30.0	46.0
	Very Important	27	54.0	54.0	100.0
	Total	50	100.0	100.0	

1.4.1 Use English for realistic, purposeful communication

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Quite Important	10	20.0	20.0	20.0
	Very Important	40	80.0	80.0	100.0
	Total	50	100.0	100.0	

1.4.2 Employ CMC to increase their language...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	2	4.0	4.0	4.0
	Quite Important	11	22.0	22.0	26.0
	Very Important	37	74.0	74.0	100.0
	Total	50	100.0	100.0	

1.4.3 Critique and respond to the language input by others

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	4	8.0	8.0	8.0
	Quite Important	22	44.0	44.0	52.0
	Very Important	24	48.0	48.0	100.0
	Total	50	100.0	100.0	

1.4.4 Use reflective Web-based tools that fosters EFL

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	3	6.0	6.0	6.0
	Quite Important	20	40.0	40.0	46.0
	Very Important	27	54.0	54.0	100.0
	Total	50	100.0	100.0	

2.1.1 Understand the structure and organisation of web

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	9	18.0	18.0	18.0
	Quite Important	13	26.0	26.0	44.0
	Very Important	28	56.0	56.0	100.0
	Total	50	100.0	100.0	

2.1.2 Understand advanced features provided by search engines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	3	6.0	6.0	6.0
	Quite Important	16	32.0	32.0	38.0
	Very Important	31	62.0	62.0	100.0
	Total	50	100.0	100.0	

2.1.3 Identify information need or learning need

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	1	2.0	2.0	2.0
	Quite Important	14	28.0	28.0	30.0
	Very Important	35	70.0	70.0	100.0
	Total	50	100.0	100.0	

2.1.4 Use a variety of search tools and strategies for task

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	1	2.0	2.0	2.0
	Quite Important	11	22.0	22.0	24.0
	Very Important	38	76.0	76.0	100.0
	Total	50	100.0	100.0	

2.1.5 Effectively surf the web to locate relevant info

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Quite Important	9	18.0	18.0	18.0
	Very Important	41	82.0	82.0	100.0
	Total	50	100.0	100.0	

2.1.6 Use effective techniques for organising keywords

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	4	8.0	8.0	8.0
	Quite Important	16	32.0	32.0	40.0
	Very Important	30	60.0	60.0	100.0
	Total	50	100.0	100.0	

2.1.7 Deal effectively with searches and results

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	1	2.0	2.0	2.0
	Quite Important	17	34.0	34.0	36.0
	Very Important	32	64.0	64.0	100.0
	Total	50	100.0	100.0	

2.1.8 Make rapid navigational decisions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	5	10.0	10.0	10.0
	Quite Important	22	44.0	44.0	54.0
	Very Important	23	46.0	46.0	100.0
	Total	50	100.0	100.0	

2.1.9 Employ strategies for finding info within website

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	3	6.0	6.0	6.0
	Quite Important	13	26.0	26.0	32.0
	Very Important	34	68.0	68.0	100.0
	Total	50	100.0	100.0	

2.1.10 Explore new search approaches and alternatives

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	2	4.0	4.0	4.0
	Quite Important	16	32.0	32.0	36.0
	Very Important	32	64.0	64.0	100.0
	Total	50	100.0	100.0	

2.2.1 Understand the features of online texts

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	5	10.0	10.0	10.0
	Quite Important	24	48.0	48.0	58.0
	Very Important	21	42.0	42.0	100.0
	Total	50	100.0	100.0	

2.2.2 Understand the nature of hypertext-interactions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	9	18.0	18.0	18.0
	Quite Important	21	42.0	42.0	60.0
	Very Important	20	40.0	40.0	100.0
	Total	50	100.0	100.0	

2.2.3 Look for and workout the overall meaning of a message

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	9	18.0	18.0	18.0
	Quite Important	16	32.0	32.0	50.0
	Very Important	25	50.0	50.0	100.0
	Total	50	100.0	100.0	

2.2.4 Focus on a particular question/problem/enquiry to guide online reading

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	5	10.0	10.0	10.0
	Quite Important	16	32.0	32.0	42.0
	Very Important	29	58.0	58.0	100.0
	Total	50	100.0	100.0	

2.2.5 Activate their prior knowledge to make use of background info

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Quite Important	11	22.0	22.0	22.0
	Very Important	39	78.0	78.0	100.0
	Total	50	100.0	100.0	

2.2.6 Read across an evolving range of online texts

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	1	2.0	2.0	2.0
	Quite Important	18	36.0	36.0	38.0
	Very Important	31	62.0	62.0	100.0
	Total	50	100.0	100.0	

2.2.7 Navigate through links and connected pages to construct meaning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	2	4.0	4.0	4.0
	Quite Important	18	36.0	36.0	40.0
	Very Important	30	60.0	60.0	100.0
	Total	50	100.0	100.0	

2.2.8 Employ new reasoning and comprehension strategies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	3	6.0	6.0	6.0
	Quite Important	20	40.0	40.0	46.0
	Very Important	27	54.0	54.0	100.0
	Total	50	100.0	100.0	

2.2.9 Read purposefully, selectively, and pragmatically within an online environment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	2	4.0	4.0	4.0
	Quite Important	4	8.0	8.0	12.0
	Very Important	44	88.0	88.0	100.0
	Total	50	100.0	100.0	

2.2.10 Make use of cues (e.g. captions, icons) to identify relevant ideas

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	1	2.0	2.0	2.0
	Quite Important	16	32.0	32.0	34.0
	Very Important	33	66.0	66.0	100.0
	Total	50	100.0	100.0	

2.3.1 Understand imp facts about websites and reliability (e.g. agenda, bias)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	6	12.0	12.0	12.0
	Quite Important	21	42.0	42.0	54.0
	Very Important	23	46.0	46.0	100.0
	Total	50	100.0	100.0	

2.3.2 Identify a website's form and general purpose

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	4	8.0	8.0	8.0
	Quite Important	16	32.0	32.0	40.0
	Very Important	30	60.0	60.0	100.0
	Total	50	100.0	100.0	

2.3.3 Identify the type of a webpage content

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	3	6.0	6.0	6.0
	Quite Important	14	28.0	28.0	34.0
	Very Important	33	66.0	66.0	100.0
	Total	50	100.0	100.0	

2.3.4 Should be critical and reflective by going beyond simple decoding

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	2	4.0	4.0	4.0
	Quite Important	18	36.0	36.0	40.0
	Very Important	30	60.0	60.0	100.0
	Total	50	100.0	100.0	

2.3.5 Employ critical thinking skills and strategies while investigating info

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	1	2.0	2.0	2.0
	Quite Important	11	22.0	22.0	24.0
	Very Important	38	76.0	76.0	100.0
	Total	50	100.0	100.0	

2.3.6 Make use of their background knowledge to evaluate what they read

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	1	2.0	2.0	2.0
	Quite Important	10	20.0	20.0	22.0
	Very Important	39	78.0	78.0	100.0
	Total	50	100.0	100.0	

2.3.7 Students should make critical, informed judgements about online info

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	2	4.0	4.0	4.0
	Quite Important	12	24.0	24.0	28.0
	Very Important	36	72.0	72.0	100.0
	Total	50	100.0	100.0	

2.3.8 Use clues in a webpage to evaluate it as an information resource

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	9	18.0	18.0	18.0
	Quite Important	21	42.0	42.0	60.0
	Very Important	20	40.0	40.0	100.0
	Total	50	100.0	100.0	

2.3.9 Ask and answer evaluative questions, e.g. is info accurate?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	1	2.0	2.0	2.0
	Quite Important	13	26.0	26.0	28.0
	Very Important	36	72.0	72.0	100.0
	Total	50	100.0	100.0	

2.3.10 Compare and contrast reliability of the info they find by investing multiple sources

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Quite Important	17	34.0	34.0	34.0
	Very Important	33	66.0	66.0	100.0
	Total	50	100.0	100.0	

2.4.1 Engage in self-directed text construction process to construct meaning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	3	6.0	6.0	6.0
	Quite Important	20	40.0	40.0	46.0
	Very Important	27	54.0	54.0	100.0
	Total	50	100.0	100.0	

2.4.2 Transform disconnected pieces of information into original text

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	3	6.0	6.0	6.0
	Quite Important	25	50.0	50.0	56.0
	Very Important	22	44.0	44.0	100.0
	Total	50	100.0	100.0	

2.4.3 Use a variety of tools and techniques to analyse, synthesise digital

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	4	8.0	8.0	8.0
	Quite Important	12	24.0	24.0	32.0
	Very Important	34	68.0	68.0	100.0
	Total	50	100.0	100.0	

2.4.4 Participate in and contribute to content building conversations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	4	8.0	8.0	8.0
	Quite Important	24	48.0	48.0	56.0
	Very Important	22	44.0	44.0	100.0
	Total	50	100.0	100.0	

2.4.5 Generate new perspectives and viewpoints by synthesising...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	5	10.0	10.0	10.0
	Quite Important	18	36.0	36.0	46.0
	Very Important	27	54.0	54.0	100.0
	Total	50	100.0	100.0	

2.4.6 Make use of various Web-based electronic formats

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	2	4.0	4.0	4.0
	Quite Important	15	30.0	30.0	34.0
	Very Important	33	66.0	66.0	100.0
	Total	50	100.0	100.0	

3.1.1 The potential of the Internet for EFL learners to access resources

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Quite Important	7	14.0	14.0	14.0
	Very Important	43	86.0	86.0	100.0
	Total	50	100.0	100.0	

3.1.2 Access Web-based English language teaching/learning resources

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	1	2.0	2.0	2.0
	Quite Important	9	18.0	18.0	20.0
	Very Important	40	80.0	80.0	100.0
	Total	50	100.0	100.0	

3.1.3 Evaluate useful types and forms of online resources

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Quite Important	14	28.0	28.0	28.0
	Very Important	36	72.0	72.0	100.0
	Total	50	100.0	100.0	

3.2.1 Access online authentic language material

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Quite Important	13	26.0	26.0	26.0
	Very Important	37	74.0	74.0	100.0
	Total	50	100.0	100.0	

3.2.2 Locate and utilise useful language teaching/learning

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Quite Important	7	14.0	14.0	14.0
	Very Important	43	86.0	86.0	100.0
	Total	50	100.0	100.0	

3.2.3 Access professional material, contacts, resources....

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	1	2.0	2.0	2.0
	Quite Important	17	34.0	34.0	36.0
	Very Important	32	64.0	64.0	100.0
	Total	50	100.0	100.0	

3.2.4 Download different type of resources related to TEFL

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Not Important	2	4.0	4.0	4.0
	Quite Important	6	12.0	12.0	16.0
	Very Important	42	84.0	84.0	100.0
	Total	50	100.0	100.0	

Appendix J: Interventional Tasks of the First Iteration as Administered to Participants through E-mail-based Communication

Dear respectable colleagues (4th Year English-section students at Assiut University College of Education),

I trust all of you are doing well at both personal and academic levels. Thanks again for those who have recently joined the group. Some of you might ask: What's that Community of Practice (CoP) all about? Please promise me to devote few minutes of your time to read the following article:

http://www.infed.org/biblio/communities_of_practice.htm

to answer the following questions: (NOTE: please kindly each of you sends his/her answers individually)

1- What is a Community of Practice (CoP)? (Please write a short definition in your own words based on your understanding!)

2- How can a CoP be useful in a language learning context?

3- In the light of your reading, what is your suggestions for improving our own CoP which I've already established for you and which is currently under construction?

Please kindly do the task as soon as possible as the issue is important!

Best wishes

Mahmoud

Dear respectable colleagues,

I've noticed that only 9 of you have joined the group. Please try to join as soon as you can as after a few days, I will use the group e-mail address to contact you and I will upload any new files that might be important to you to the group website. Again, to subscribe, please send an e-mail message to:

searching_for_identity-subscribe@yahoogroups.com

The group website is:

http://groups.yahoo.com/group/searching_for_identity/

Best regards

Mahmoud

Dear respectable colleagues,

This is just to explain to you my purposes and the way that we should interact with each other. I see that from the very beginning, we should identify the rules that should guide our CoP...I treat you as colleagues, brothers and sisters, not merely as learners. You should feel with a democratic sense while dealing with me. Honesty, clarity of purpose, collaboration, mutual understanding, and devotion to work should be the principles that should govern our work together as a group or online community. Please never feel shy to direct or correct me whenever you feel that I did something you're not happy with. Again, feel free to contact me at anytime once there's anything that I can do for you!

All the best!

Mahmoud

Dear students,

After you join my new Wiki, please go to this page on animal farm at: <http://assiuttefl.wikispaces.com/Animal+Farm> and do two things:

- 1- Read the useful account I wrote on animal farm and try to correct any mistakes that I INTENTIONALLY included (you will find many!) by editing the page.
- 2- Try to answer questions at the end because they might be very important for your final exam.

Best wishes

Mahmoud

Hi again M...,

I'm sure about that! Thanks for this cooperative spirit. I wish you the best of luck. Please also go to our Wiki to see a useful account I wrote on animal farm at: <http://assiuttefl.wikispaces.com/Animal+Farm> and read it carefully to correct some errors that I intentionally included in this short account. Doing this is very easy. Just

click on EDIT on the top on your right hand side and correct what you think as wrong, and then click SAVE to save these corrections/changes.

Also try to answer the questions at the end using the same procedure. This is for all group members. All of you, after being members in my new Wiki, can enter to answer, add, correct, and contribute. I will be monitoring your efforts from here. I really hope to see at the end a very comprehensive account made by you and which can be good model for all English-section students coming after you. You might think that this is a waste of time, but you can't imagine how useful this will be after you finish with it. You will discover that you have learned so much from each other. I trust that all of you in the group are capable persons with good experience with the internet and English...That's why I'm sure that you can (and will) do it. Just start (even with writing or editing a single word) and you will see how enjoyable & fruitful the process will be. I'll be watching your contributions online and I'm ready to provide support and guidance 24/7.

Best wishes

Mahmoud

Dear M...,

Thanks so much for your enthusiastic reply & great readiness to take part. I'm very glad to know that you have already thought of similar projects. This makes me trust you as a core member who can help me with my project. I really hope that all your colleagues are taking it so seriously as you do. By the way, the mistakes I intentionally included are not only SPELLING mistakes, but also VITAL mistakes that change the main theme of the novel. If you read the piece carefully, you'll discover that there are so many mistakes!

Best,

Mahmoud

Dear respectable colleagues,

I was happy tonight to see MOST mistakes in my Wiki's page on "Animal Farm" gone! Well done to those of you who did that. Yet, still there are some mistakes that you will easily discover if you read carefully. I'll be more than happy when I find many of you doing the tasks. Unfortunately, few people have sent me their answers to the CoP task.

Please take issues more seriously because your efforts are needed.

Best wishes

Mahmoud

Dear friends,

The task below will help you so much with the novel A Passage to India because I personally tried it and it worked. Please follow the steps below:

1- Go to this website: <http://answers.yahoo.com/>

2- In the SEARCH FOR QUESTIONS bar, please write: A Passage to India, then click SEARCH or press ENTER

3- See as many of the questions results as you can and move to pages 2.3.4.5.6. etc. to see more results if you find time. These questions are mostly written by students like you. Try to make use of experts who ANSWERED these questions (note: below each question you will find many answers in most cases. Review these answers and then:

4- Repeat the same steps using different keywords such as: a passage to india +themes or a passage to india +relationships, etc.

5- After you finish with this (AND THIS IS THE MOST IMPORTANT STEP), please go to my Wiki's new page on "a passage to india" at: <http://assitutefl.wikispaces.com/A+Passage+to+India> and answer the simple questions by clicking EDIT on the upper right hand side of the page. Write your answer under each question and SIGN your full name so that I know WHO answered WHAT. Then click SAVE after you finish.

If you have any further inquiries, please contact me individually.

I'll really appreciate your cooperation...Thanks so much in advance

Mahmoud

Hi again A...

It's my greatest pleasure to help. I've already prepared a presentation on "the role of the Internet in our everyday lives and learning". You can tackle the following aspects:

1-How the internet has facilitated our lives.

2-The rapid integration of the Internet for many academic, industrial, and entertainment purposes.

3-The role of the Internet as a multi-purpose tool.

4-How the Internet has been facilitating learning.

5-The role of the Internet as a tool that promotes lifelong learning....etc.

I'll try to find my presentation for you and send it in another email as soon as I find it...but first, do you like the topic?

Cheers

Mahmoud

Hello again A...

Below please see the presentation I told you about and which I prepared few years ago. Take it only as a model because it sounds old. So, keep in mind when you take anything from it that some data need to be updated:

The Internet in Our Life

There is an important question that we should ask ourselves: What is the linguistic meaning of the word 'Internet'? In other words, what is the linguistic origin of this word? The word Internet is a new word known to almost everybody today. It consists of two parts: "inter" and "net". "Inter" is the first part of "international" or "interconnected". "Net" is the first part of the word "network". "Internet" then refers to the global network of interconnected computers, which makes it possible for any connected computer to communicate information with any other connected computer wherever it is on Earth.

The Internet is a huge number of computers interconnected together, just like the leaves of a huge tree. Tree leaves are connected in patterns through branches which vary in size. So are the Internet computers which are connected in similar patterns through cables and satellites at different networks. A Local Area Network (LAN) connects computers in one location. A Wide Area Network (WAN) joins neighbouring locations to the Metropolitan Area Network (MAN) which connects a whole city to the whole

world.

What about the beginning of the Internet? The first recorded description of the social interactions that could be enabled through networking was a series of memos written by J.C.R. Licklider of MIT in August 1962 discussing his "Galactic Network" concept. The first two locations connected up by computers were about 500 kilometres apart. This first step towards the internet took place in 1969 in California, USA. The estimated number of Internet users all over the world today varies considerably. At the turn of the millennium, one of the estimates was more than 700 million people. The figure may have exceeded 1,000,000,000 while you are reading these lines.

It is quite clear that the future of the Internet is very promising. It will play an essential role in shaping our life in the future. The evolution of the Internet has not ended yet. More and more services will be based on the Internet. If you are not an Internet user already, you will probably be one in the near future. It seems that very soon everybody will be using an Internet device, much like the mobile phone in all hands nowadays. Some mobile phones can already give you access to the Internet today through what is called Wireless Application Protocol (WAP).

There are many benefits, uses or services that the Internet provides in our everyday life. One of the most important services is the electronic mail (e-mail). If you do not have an e-mail address already, you should have one as soon as you can. It seems that everybody is going to have one very soon. Some people who do not have an e-mail address may be embarrassed when asked about their e-mail addresses. An e-mail address may be like this: msayed40@yahoo.com. E-mail is the latest and most convenient means of written communication man has ever had. Messages reach the recipient in almost no time. Anyone can access his e-mail box from any part of the world. All what you need is a computer with Internet connection where you can key in your name (Id) and password.

The World Wide Web (WWW) contains thousands of sites for commercial business (com), organizations (org) or educational institutes (edu). If you have not got a private web page already, you can create and format your first page. You can even upload it from your computer to the web server. You do not have to own or represent a company in order to use electronic publishing.

Websites are very useful for organizations which need to achieve publicity and show their activities. Businesses can increase their profits by advertising their products or services. Research centres, inside and outside educational institutes, can use their sites as channels for briefing interested Internet users about the latest research findings in different fields of knowledge.

It is possible today to call anybody on the other side of the globe via the Internet. Such an Internet phone call (IP) will not cost more than the price of a local call. All what you need is compatible configuration, as a fast modem, suitable software, headphones and microphones.

You can "chat" privately even with a person unknown to you through "I Seek You" (ICQ), the yahoo Messenger, or the MSN. The person who you chat with receives your message as soon as you type it. Even when he/she is offline, the message stays till he/she becomes online and reads it. Millions of internet users have actually met in real life after developing a relationship through chatting.

There are over 25,000 newsgroups or discussion groups in the world today. Each of these groups has a special interest in a certain topic. Members of each group discuss the ideas, and exchange the news, relevant to their domain of interest.

Best wishes

Mahmoud

Hello group

If any of you in the group are working together to do a presentation or a project in any course you study, please let me know. Just send me the names of each group members and the title of the project so that I can help you to work together within our CoP. The idea is that you can work better and produce better work within each group collaborating online. I can monitor your online interactions and provide you with feedback that may help you. Please reply as soon as possible!

Best wishes

Mahmoud

Dear members,

I can confidently assure you that you will even do better in your exams if you do the tasks that I've already sent to you in my recent e-mails. After you do them, you will find out that you have learned so much. Unfortunately, very few of you did these tasks. Many of you might think that this might waste their time! You should trust me because it's my main concern to help all the group, not only to succeed, but to get the best grades. Many colleagues warned me that my project may fail because many students won't take it seriously...But I challenged them telling them that I'm sure that the distinguished group I'm working with would meet my expectations. The coming few days are so critical to my research project. So, what I need from you during these days is to spend from 15-30 minutes online to do the CoP tasks.

More specifically, please try to do the following as soon as possible:

- 1- Join my e-mail group if you haven't done that yet: http://groups.yahoo.com/group/searching_for_identity/ by sending a subscription request to: searching_for_identity-subscribe@yahoogroups.com
- 2- Join my Blog at: <http://assiuttefl.blogspot.com/>
- 3- Join my Wiki and do the task at: <http://assiuttefl.wikispaces.com/A+Passage+to+India>
- 4- Do the CoP task that I've already sent to you in an e-mail

Should you have any further inquiries, please e-mail me at anytime!

Best regards

Mahmoud

Hi again A...

It was my pleasure to find you online and chat with you. I'd like you to kindly give me your feedback on our online interaction that exceeded 2 hours, with reference to the following:

- 1- Did you learn anything new during this interaction (online chat)? how?
- 2- Do you consider it as a learning experience? why?

3- What are the disadvantages of this interaction?

4- How, do you think, can we improve this learning situation in the future?

By the way, I sent another e-mail to ... using the e-mail address you gave to me, and got a failure delivery notice as you can see below. I think that the best option now is to give him my e-mail address and let him write to me. I'm 100% convinced now that there's a problem in his e-mail.

Thanks so much!

Mahmoud

Hi Ah...

Thanks for this. I'm glad to know that you joined my Blog and Wiki. Please do two things:

1- Go to the Wiki and open the pages of the two novels you study: Animal Farm and A Passage to India, and then try to answer the questions you will find there according to your knowledge and then sign your name under each answer, and finally, save these changes.

2-For the Blog, just post anything or idea that you regard as useful to the group...See a previous e-mail on how to create a new post.

Best wishes

Mahmoud

Dear group members,

Unfortunately, most of us (and I consider myself one of them), don't use the HELP option when they feel lost online. If we spend sometime reading through the help details, we will discover how useful it is. Until very recently, I used to ask friends and specialists when I experience any difficulty with any applications or websites. Nowadays, you can hardly see an application or website without a HELP menu. If you look up to the top of this page while you're reading my e-mail, you will find this HELP menu. If you have sometime, I'd like you to try using the HELP menu on your e-mail

account and the Google website to help you with something that you've been struggling with for sometime. We can continue this discussion, if you're interested, on our Blog!

Best wishes

Mahmoud

Dear M...

A catalyst (also see:
[http://uk.encarta.msn.com/encnet/features/dictionary/DictionaryResults.aspx?lextype=3
&search=catalyst%20](http://uk.encarta.msn.com/encnet/features/dictionary/DictionaryResults.aspx?lextype=3&search=catalyst%20)

[http://dictionary.cambridge.org/define.asp?key=11878&dict=CALD&topic=chemistry-
general-words](http://dictionary.cambridge.org/define.asp?key=11878&dict=CALD&topic=chemistry-general-words)

as you might have seen has two related meanings: a chemical sense which is very common and which means a helping element that helps in chemical interactions without being affected...The 2nd meaning (which might be closer to what I intended the word to be here) relates to assigning someone to cause a change...In my particular context, I meant that you should help me with my job by acting as "an active member who mediates between me and other group members to motivate them, convince them to participate, and so on". I really hope that it's become clear. Besides, I introduced you to 2 of the most useful English dictionaries online (Cambridge and UK MSN) on which I totally rely. Gradually, and through using such dictionaries, you won't need English-Arabic ones! 😊

Best wishes,

Mahmoud

Wonderful M...!

This is very touching indeed!

R...-for resources, just Google any part from any material you want to know where it came from. The EXACT phrases "between 2 inverted commas" will always return exact results. This is the only way teachers in this Internet age can easily know whether the student is cheating or creating!!! In our research circle, if any of us as PhD students was accused of plagiarism, he won't succeed! You will ask, "what does plagiarism mean?" The answer is easy: Just GOOGLE it (in the Google search bar write:

define:plagiarism).

In order to avoid plagiarism, simply acknowledge the original source of your data...I don't mean that M... has done a mistake, but rather she admitted that this is not hers WITHOUT mentioning the resource...It would be much better if we mention the resource...Oh, by the way, I'll tell you HOW to know that...Simply GOOGLE any EXACT phrase from the text above: For example, Google "As we grow up, we learn that even the one person" as an EXACT phrase...You'll find these results...Too easy, isn't it????

<http://www.google.co.uk/search?hl=en&q=%22As+we+grow+up%2C+we+learn+that+even+the+one+person%22&meta=>

v

Regards

Mahmoud

Hello A...,

You are most welcome at anytime...I'm getting better, thanks. By being online, I didn't mean to be online at a specific time during the day as I understand that you are studying hard and I don't want to interfere with your study plans...I just meant that you should spend a period that ranges between 10-30 minutes everyday to see my e-mails, reply to me or do the task, and go to the Blog and the Wiki to share information with your colleagues...By the way, have you joined my Yahoo Group yet? If not, please do ASAP.

Hope that I made things clear to you.

Best wishes

Mahmoud

Dear friends,

Netiquette is a term that has appeared with the increasing use of the Internet...They say that when people are online, the worst aspects of human nature come out (do you agree to that, by the way?) As the term implies, one's behaviour online should be governed by some rules...Please see Google definitions and the online account of Wikipedia for more information:

<http://www.google.co.uk/search?hl=en&q=define%3Anetiquette&meta=&aq=f&oq=>

<http://en.wikipedia.org/wiki/Netiquette>

Because all of you belong to a CoP and are supposed to interact with other online communities, you should be aware of these rules.

These rules involve:

- 1- Showing respect to other users online (This includes respecting other people's privacy).
- 2- Using appropriate language (this includes avoiding flaming).
- 3- Using emoticons and smileys after some words/phrases to show good intentions now that words alone may not convey your feelings or intentions 😊
- 4- Avoiding using UPPER-CASE OR CAPITAL LETTERS because this indicates SHOUTING 🗣️, rather than emphasis, which is not acceptable!
- 5- Don't send much spam to other people.
- 6- Threatening people online and/or causing them harassment or frustrations is not acceptable.
- 7- When you have extra information that clarifies something or add something, don't include this in the main body of the email...Rather, add this as attachment(s) so that the receiver has the choice either to read this or not depending on their convenience.
- 8- Try to apologise when you make a mistake to convey a good impression about yourself.
- 9- The best reply to an offensive e-mail is to IGNORE it, and SPAM it so that no future e-mails come to you from the same sender.

This is what I remember...Now, I want you to read more about the topic (just for few minutes, even if you only review the Google definitions), and then POST something to our Blog at: <http://assiuttefl.blogspot.com/>

By the way, when you answer any question on the Wiki, please write your answer, and sign your name WITHOUT deleting other colleagues' answers...I'm going to try to fix it now!

M...-You have done a great job on the Blog, thanks for that! But for this task about netiquette, I want other people to make the first posts...Ah...and I...-Please start new posts putting your reflections on (and experience with) netiquette and how you will apply the rules mentioned above to your future use of the Web! I'm sure that you're capable enough to do it.

Best regards

Mahmoud

Dear brothers & sisters,

One of our colleagues has just contacted me about my last e-mail to you saying that the task was difficult, and so, she wasn't able to understand it! I got the same impression because neither Ah... nor I... has posted anything yet to the Blog! As I said in an earlier e-mail, honesty & transparency should govern our interactions as an online community. So, please if you feel that you need any clarification at any time, please feel free to contact me at anytime! If you need direct guidance from me online, I'll allocate sometime for being online to chat with you, whether by voice or in writing. All the best

Mahmoud

Hello everybody!

I've found the complete movie of "Animal Farm" available on youtube at:

<http://www.youtube.com/watch?v=NZldIyeR8DU>

But I strongly suggest that you should have a look at: http://en.wikipedia.org/wiki/Animal_Farm just to jog your memory and prepare yourself for the movie. I saw the movie 3 years ago, and I liked it very much to the extent that I narrated it yesterday to my 6-year old son, who watched part of the movie before he slept and was so enthusiastic about it that he asked for watching the rest of it ASAP.

VERY IMP: After you watch the movie, please kindly write your impression by making a POST to our BLOG, Assiut English Language Learning Community at: <http://assiuttefl.blogspot.com/> or send an e-mail reflecting your personal impressions/reflections after watching the movie to the WHOLE group...To send an e-

mail to the whole group, please insert the following e-mail address in the TO field: searching_for_identity@yahoogroups.com ...This is the ONLY way through which each ONE of us can address the WHOLE group. I encourage you, from now on, to use this method when you contact me about a PUBLIC thing of interest to the whole group so that ALL of us AS A GROUP can understand what's going on!

I'm sure that you're able to do that as adult language learners who I'm planning to connect together as ONE Community of Practice for the WHOLE life inshallah...and why not since all of us nowadays need to learn how to be lifelong learners who can share opinions, experience, and resources.

Throughout my interactions with you so far, I can confidently say that you're respectable and cooperative students who are keen to help me with my study. I understand that you're so busy at the moment, but you can't imagine how important your participation is for me during the coming 10 days...Contribute to the group activities with even ONE single word! They always say that "Everything is difficult at the beginning", and hence, once we could overcome this critical ice-breaking stage, we would be able to do it...You need to take things seriously because based on the tasks you've been doing these days, I'm going to plan a course for you that addresses your realistic needs and help you to improve your English through using the Web. This course will be based on modern language learning theories prominent in the UK!

Please always remember that I'm doing all this, not only for my benefit, but for you as clever students who are ready to develop themselves professionally as indicated by your responses to my questionnaire. Therefore, I'm quite sure that anything you will do for me will NEVER interfere with your study; instead, it will help you, whether directly or indirectly, with your coming exams this semester...Trust me and you will see!

Finally, I'd like to thank M... (group facilitator) so much for the great efforts she has been exerting in the group...Well done, M...! Special thanks to I... for taking the netiquette task seriously, hoping that I see her posts and e-mails soon as she promised. Thanks to MS...for his readiness to help...Thanks to RI...M...and all of you who have responded so positively, and I beg you pardon if I forget to mention any active member...I've recently noticed that many of you have begun to take things seriously...Well done!

I'll be waiting for more to come from you! Enjoy watching Animal Farm and don't forget the task! 😊

Best wishes

Mahmoud

Dear colleagues

Just ONE last thing about contacting each other through Yahoo Groups. This type of contact, frankly speaking, helps so much with resolving our cultural or gender sensitivities/problems; all of us can contact each other (males and females) WITHOUT any fears or reservations! For example, when any of you replies to THIS e-mail, this reply will reach, not only me, but the WHOLE group...also, a copy of this e-mail will be automatically saved on the group website...So, and my speech to FEMALE colleagues in particular, don't worry at all as nobody will use a PUBLIC e-mail or reply through the group against you. This is a learning context, and therefore, when any male, for example, posts an e-mail to the group in which there's something that a female would like to discuss with him or give feedback, it's not a problem at all that she replies to him THROUGH the group since this reply will reach ALL group members! I hope you got my point...Therefore, again and again, I encourage the 20 colleagues who haven't joined the group to join as soon as possible! Joining the group is a piece of cake. Just send an e-mail to:

searching_for_identity-subscribe@yahoogroups.com

and I will approve your request immediately!

Best wishes

Mahmoud

Hello everybody,

Today's saying: "**Making contributions is the cost of getting insights from others**"

Source:

Wenger, E., McDermott, R., & Snyder, W. (2002). *Cultivating Communities of Practice: A guide to managing knowledge*. Boston, Mass: Harvard Business School Press.

Available at:
http://books.google.co.uk/books?id=m1xZuNq9RygC&dq=Cultivating+Communities+of+Practice&printsec=frontcover&source=bn&hl=en&ei=pmc_S5rhH8mt4QbImvipCA&sa=X&oi=book_result&ct=result&resnum=4&ved=0CCcQ6AEwAw#v=onepage&q=&f=false

The question is: What do you think this means? And how can we make use of this in our CoP?

Thanks so much!

Mahmoud

Hi S...,

Thanks so much for your feedback! Please could you include this interesting account in the Animal Farm page in our Wiki. You can include it under a title like "Story" or "Main Plot". Our wiki is available at: <http://assiuttefl.wikispaces.com/>

Best regards

Mahmoud

Hi S...,

Thanks so much for this nice critical review! (By the way, what's your resource?)...I like the interesting style and logical sequence very much. Again, please add this interesting account in the Animal Farm page in our Wiki. You can include it under another title like "Animalism" or "Betrayal of Revolution", or any title that you find interesting. Our Wiki is available at: <http://assiuttefl.wikispaces.com/> I'll be VERY happy if you, as active group members, visit this page to add something, edit something, or comment on something followed by your signature!

Best wishes

Mahmoud

Hi M...!

One of your colleagues doesn't know how to deal with a Blog and doesn't know what a Wiki is (Please see that e-mail below). As a group facilitator, do you mind sending him

details that answer his question? I'll appreciate that very much, especially because I'm too sick to write these answers in detail. I'm sure that your technical experience as well as your readiness to help will enable you to provide this guidance. Please do that by sending an e-mail to the WHOLE group so that I see your answer to put this in a file and add this contribution to your achievements folder...Besides, this guy is already a member in the group and he will receive the message for sure! After you finish that e-mail, please send it to: searching_for_identity@yahoogroups.com

Thanks so much in advance, M...!

Mahmoud

Hello again, MN...

I've just uploaded some useful files in a folder called, "A Passage to India" on the group website: http://groups.yahoo.com/group/searching_for_identity

To all group members: Please go to the group website to see these files!

Best wishes

Mahmoud

Hi S...!

Thanks for your informative reply...I think that you have kindly stated the most important aspects related to the character of Dr Aziz...Well done! I wonder if there are any other colleagues who would like to share their useful accounts. I think we need more detailed description dealing with these aspects to generate a good sketch or depiction of this character. For example, can anyone provide more details about Aziz's relationship with the main figures in the story and how these relationships have been influenced by some major events?

Best wishes

Mahmoud

Hello R...!

Thanks for your efforts! Normally, when a file exceeds 10 mega bites in size, it can't be uploaded. This might be the reason why you r not able to upload it. Please check the

size by right-clicking on the file on your pc and choosing properties...Also, try to send it to me as an e-mail attachment so that I can upload it for you from here...Anyway, if you can send it to me as attachment, then there would be no problem with the file size. Just give it a shot!

Best,

Mahmoud

Dear respectable colleagues,

With reference to a recent incident and based on a female colleague's request, I'm writing to warn all of you, especially female colleagues, against Zorpia and similar websites. The best reaction is to SPAM any e-mails coming from anonymous senders or organisations that need you to subscribe with them.

My advice is mainly motivated by my concern about you as all of you as a group whom I care about. I'm so much concerned about those of you who are still newbies (you can Google newbie to see what it means) who lack expertise in the Internet world and who can fall easily as victims to online hackers and fraudulent acts. This is, unfortunately, the bad thing about the Internet!

I FULLY understand the problem with this Zorpia website and the invitations circulated among the group members. Personally, I refused the invitation because I was quite sure that the group member from whose account the invitation was sent, was not the real sender. These bad websites, as you might have noticed, use very tricky and bad techniques to circulate invitations among anyone's friends without even s/he realizing that. I've just visited wikipedia to double-check and found no accounts/articles on "Zorpia" ...I think all of you know what this means!!! So, the best thing to do is to end your membership or subscription with such websites...just stick to legal, famous social networking websites, such as Facebook and my space. Of course, you're most welcome if you have any further inquiries or need any further advice/help in this regard.

Best,

Mahmoud

Dear S...,

Thanks so much for your quick response! I'm not a novel expert, but in my humble opinion, I see your answer as a nice summary of the main ideas which an ideal answer should cover. What is interesting in your answer is that you wrote it in YOUR OWN STYLE (as I feel) based on your personal understanding of the whole story...Well done! This is the good news.

I have few small notes that might help you to improve your answer in the future. First, though your answer takes a logical sequence that makes much sense, I feel that there're missed details that need to be mentioned so as to complete the whole picture. Try to think about the specific details that might support and strengthen your argument. But I understand that you posted a brief answer just as an introduction for pulse measuring, something that I did really need to open the dialogue for the whole group!

Your grammar and spelling are perfect, but take care of using appropriate titles. For example, based on my experience with the English society here, they can't say Miss Adela (first name) because none has ever called me "Mr Mahmoud"! They would say, "Mr Abdallah" instead! In your case, you can either say "Adela" or "Miss Quested" now that she's not married...is she???

Another point: Try to use quotations from the novel to support your argument...I mean CRITICAL important quotations, not any quotations...I'm sure that with some effort and improvements you will be able to compose a comprehensive, well-argued answer that I may review for you in the future, if you like!
Thanks again for your contribution which made me more optimistic about working with the group!

Best wishes,

Mahmoud

Dear respectable group members,

Thanks to all of you who have contributed to our discussion of E. M. Forster's "A Passage to India". S... kindly presented a good answer to my question on the character of Dr Aziz as far as the central theme of personal relationships is concerned. My comments were just to improve the answer so that any of you can add/modify anything. S...: I strongly suggest that you should put your answer (along with the question) online on our Blog <http://assitutefl.blogspot.com/> or Wiki

<http://assiuttefl.wikispaces.com/> (Page on "A Passage to India") so that we can collaboratively work to flexibly edit and change the text. This leads me to "the Tip of the Day": Using the Web to check and verify language!

My argument is that the Web can be useful for us as foreign language learners to check our language in the same way as it is useful as a rich language resource and communication tool. Have you ever thought about the good function of the spell & grammar checkers in a software like Microsoft Word and how helpful this might be if you set the programme to automatically check for spelling, grammatical, and even style errors and correct that? However, the software can't do everything, as I think, when it comes to going further as to check appropriate forms of language use...I understand that you might be familiar with these lexical and semantic issues based on your linguistic courses, but I'm taking the Web further to present solutions for such problems...For example, is "interactional" English? Few minutes ago, I was writing part in a chapter. I wanted to use "interactional patterns", but the software underlined "interactional" as an incorrect form. I was not convinced, and hence, I wrote the term into Google search bar and got the following results:
<http://scholar.google.co.uk/scholar?hl=en&source=hp&q=interactional+patterns&um=1&ie=UTF-8&sa=N&tab=ws>

What can you conclude from this? Have you any personal experiences to share in this regard? I'm available most of the time for personal chat and discussions...Just be patient with my writing speed these days! You can chat with voice, if you like! I'm waiting for your replies and useful ideas to share!

Best wishes!

Mahmoud

Dear respectable colleagues,

I've just found this question left as an offline message by one of your colleagues (though I prefer e-mail communication in these cases as sometimes I don't see offline messages on chat)...The question was: "How can I answer a quotation question in the novel?" I've just answered it for him and I'd like to share this answer with you so that all of us can make use of that:

This is a very good question...I have some tips for you...But first keep in mind that NOT any quotation comes in the exam...Only come those pivotal, central quotations that have great significance within the context of the story. My first advice is that you should not write so much to answer such a question. 3 pages are MORE than enough. I remember that Prof. Fardous Abdel-hamid in 1995 taught us how to answer this question in the context of the drama course...But I think her advice can be applied to the novel course as well. Here is what I can remember:

1- The first step is to briefly (just in 1 short paragraph) explain the SETTING or SITUATION (e.g. who said that? to whom? why? maybe where, etc.).

2-Then, try to discuss the MEANING and SIGNIFICANCE of these words or statement (i.e. what does this mean and how important is it)

3-Relate this quotation to the characters in the story...For example, you can move to speak more about the character of the sayer and his/her motivation for saying that...take an example from "A Passage to India"...If it is Dr Aziz who said these strong words to Mr Fielding, for example, after the trial and after he was proved innocent, you can highlight the CHANGES that occurred to Aziz's character as a result of the unjust and unjustified accusation of raping Miss Quested and how this has influenced his relationship with Fielding...You can also go so far as to speak generally about the relationship between the English and the Indian, and how this incident has motivated the hidden rage and conflict inside both parties to come out.

Last, you can relate this quotation to the main/significant events and turning points in the story, and you can highlight the style/technique of the author as well as some technical elements in the story...

Best wishes...Mahmoud

Dear N...,

I really appreciate your readiness to help. At the moment, I want you to do any tasks that you haven't done before. For example, go to my Blog <http://assiuttefl.blogspot.com/> and my Wiki at: <http://assiuttefl.wikispaces.com/> and try to share ideas...Also, look at my previous e-mails to you and to the group and try to do the things that you haven't done yet. You can ask M..., the facilitator of the group, if you need any help. She has already told me that you're clever and cooperative.

Best wishes

Mahmoud

Hello respectable colleagues

How are you all? I hope that you are doing well in your study. I have no comment except God bless us!

I'm writing this message to show you how can we deal with a blog. First of all, I'd like to tell you... What is a blog? A blog is considered like a small forum that can anyone construct for himself. Through it, you can express yourself, share your ideas with others, and open nice discussions with your blog's readers. Your blog can be any thing that you like. For example, it can be historical "handles issues about history". In this case, you can write your ideas about history, share opinions with others, and start discussions about certain historical events. Like this, it can be political, educational. etc. You can use it also to develop your talents. If you are an auther, or a poet, you can make a blog for yourself and keep your works there. A blog can even be a personal diary.

Now the most important question... How can we use it?

The first step to create your own blog or to follow another one (Assuit English Language Learning Community in our case).. is to have an account on Google.. To do this, open this link.

https://www.google.com/accounts/NewAccount?service=blogger&continue=https%3A%2F%2Fwww.blogger.com%2Flogin%3F%3D%252Fcreate-blog.g%26a%3DADD_SERVICE_FLAG&hl=ar&sendvemail=true&followup=https%3A%2F%2Fwww.blogger.com%2Flogin%3F%3D%252Fhome%26a%3DSERVICE_ONLY&naui=8

There, you should write the required data.

After choosing "continue" you will find this page:

<http://www.blogger.com/create-blog.g?pli=1>

You can now create your blog and choose its name, or you can skip this step now and choose "continue".

Now you have an account on Google's Blogger.

The most important thing then is to follow and contribute in Assuit English Language Learning Community.

- To follow the blog, open the link of the blog <http://assitutefl.blogspot.com/>, and choose "follow" at the right side of the page. You will find this page <http://www.google.com/friendconnect/signin/home?st=e%3DAOG8GaDpTg%252FF8afi3yAwUi0C1n4xiRbrfwarjZlEJSfKCN%252FSMmT96SXbH5h58rjkzN0%252Fe6lCWGPvwFI1Rn0YKM773%252BoJbKdJInFvNmR%252FXRToek%252FXKmfObcfiY7DfFreRXrSDix3vZiI0jb08n8gLzwmwzJ%252FF0MmMP8jNYVSyPhGsu4o7HiN%252BZCW0dkU6PKA2HA2kN0kV33zPDK%252FzxrR5Ck8TNOqtzPOudq9zOhP1YG8%252FvYn9CFp4L7iI%253D%26c%3Dpeople sense&psinvite=choose%20google>. This page will appear

https://www.google.com/accounts/ServiceLogin?service=people sense&skipvpage=true&passive=0&hl=en_GB&continue=http%3A%2F%2Fwww.google.com%2Ffriendconnect%2Fsignin%2Fjoin%3Fst%3De%253DAOG8GaBFsXmGMKSZas%25252Bqh66G11tiRihp8g9ZHBByHJrBqxCYWf7VaiN5DpJsqgBwBpG%25252BnZQS nTrU2%25252BJ%25252BnZMONgGkRh x7ALMRqnniknTZ1OZ4Rzq2UBch%25252FofXXm8osbf2gbSP6KcFXX78aQQGH%25252BBGjYiPCJiVZKoMIVbIj91shAw2fXCUNwqVCMV7kqFUUdADynIwXFyDKYh%25252BRcMrxU3zVbmguLHKD59jF5M UtVSJkmpLZORmeW%25252FnMS8%25252F%25252FtDnWbnvyrF3KHn7Le4sK%2526c%253Dpeople sense%26psinvi te%3D&sig=6bd47f7a72a5ead eee558e511d827e9d

You'll write your account details "e-mail and password" and choose "follow this blog" from the next page.

- To contribute in the blog, open this link

<https://www.blogger.com/i.g?inviteID=55829236910709959&blogID=3562558093111968592>

and accept the invitation.

After doing this step, the blog will appear in your profile, you can then use it freely.

After opening the blog you must choose "log in" from the upper left side of the page to be able to write posts and add comment on others. Then everything will be so easy. After logging in, you can edit your profile, you can write a new post by choosing "new message", and you can add comments on the posts of the blog.

Finally, I hope to see your contributions there as soon as possible. And I'm here for any question or any problem that may face you while doing the mentioned steps. You can contact me through the group and I'll reply inshallah. Thank you in advance.

Best wishes for all

M...(group facilitator)

Appendix K: Group Dynamics Statistics

Days/Activities	E-mail Communication	Uploaded Files	Individual Chat	Blogging	Wiki	Total
15/11/2009	1	0	1	1	1	4
16/11/2009	0	0	0	0	0	0
17/11/2009	0	0	0	0	0	0
18/11/2009	0	0	0	0	0	0
19/11/2009	0	0	0	0	0	0
20/11/2009	0	0	1	0	0	1
21/11/2009	0	0	2	0	0	2
22/11/2009	0	0	3	0	0	3
23/11/2009	0	0	5	0	0	5
24/11/2009	0	0	5	0	0	5
25/11/2009	0	0	0	0	0	0
26/11/2009	1	0	0	0	0	1
27/11/2009	2	0	0	0	0	2
28/11/2009	2	0	0	0	0	2
29/11/2009	1	0	0	0	0	1
30/11/2009	0	0	0	0	0	0
01/12/2009	4	0	0	0	0	4
02/12/2009	2	0	0	0	0	2
03/12/2009	1	0	0	0	0	1

Days/Activities	E-mail Communication	Uploaded Files	Individual Chat	Blogging	Wiki	Total
04/12/2009	4	0	0	0	0	4
05/12/2009	2	0	0	0	0	2
06/12/2009	11	0	0	0	0	11
07/12/2009	10	0	0	0	0	10
08/12/2009	12	0	0	0	0	12
09/12/2009	10	0	0	0	0	10
10/12/2009	12	0	0	0	0	12
11/12/2009	16	0	0	0	0	16
12/12/2009	8	0	0	0	0	8
13/12/2009	18	0	0	0	0	18
14/12/2009	19	0	0	0	0	19
15/12/2009	15	0	0	0	0	15
16/12/2009	11	0	0	0	0	11
17/12/2009	3	0	0	0	0	3
18/12/2009	6	0	0	0	0	6
19/12/2009	11	0	0	0	0	11
20/12/2009	13	20	0	0	0	33
21/12/2009	8	0	0	0	0	8
22/12/2009	4	0	0	0	0	4
23/12/2009	3	0	0	1	0	4
24/12/2009	5	0	0	0	1	6

Days/Activities	E-mail Communication	Uploaded Files	Individual Chat	Blogging	Wiki	Total
25/12/2009	11	5	0	0	4	20
26/12/2009	13	0	0	0	0	13
27/12/2009	19	0	0	3	9	31
28/12/2009	13	0	3	1	0	17
29/12/2009	16	61	0	4	1	82
30/12/2009	9	0	1	1	0	11
31/12/2009	18	0	0	4	0	22
01/01/2010	18	0	0	2	0	20
02/01/2010	13	0	2	4	0	19
03/01/2010	13	0	0	1	0	14
04/01/2010	4	6	0	0	0	10
05/01/2010	14	2	0	1	0	17
06/01/2010	10	0	2	2	0	14
07/01/2010	4	0	1	2	0	7
08/01/2010	6	0	3	2	3	14
09/01/2010	8	0	3	2	0	13
10/01/2010	7	0	3	2	0	12
11/01/2010	15	0	0	0	0	15
12/01/2010	1	0	0	0	0	1
13/01/2010	8	0	1	0	0	9
14/01/2010	1	2	1	0	0	4

Days/Activities	E-mail Communication	Uploaded Files	Individual Chat	Blogging	Wiki	Total
15/01/2010	1	1	1	0	0	3
16/01/2010	1	1	1	1	0	4
17/01/2010	1	1	0	0	0	2
18/01/2010	1	2	0	0	0	3
19/01/2010	0	0	0	0	0	0
20/01/2010	0	0	0	0	0	0

Appendix L: Survey Questions for Evaluating the CoP

Dear student,

This is the last task that you will do for me this semester. Please be as much honest as you can and focus on both the advantages and disadvantages so that we can improve our Community of Practice...Please address the following and send your answers as an e-mail:

There are things I liked about this Community of Practice such as:

1-

2-

3-

.....
.....

There are many things I disliked about this community such as:

1-

2-

3-

.....
.....

I learned many things from the activities within the community such as:

1-

2-

3-

.....
.....

I'd like to continue/discontinue in this community because....

1-

2-

3-

.....
.....

I suggest the following to be done to improve this community and working together within it:

1-

2-

3-

.....
.....

You can add whatever you like!

Thanks so much in advance!

Mahmoud

Appendix M: Interventional Programme (Short Literacy Course)

Lesson Zero

Introduction and Orientation

Objectives:

Students should be able to:

- 1) Understand the components of the course (e.g., objectives, rules, methods, and assessment procedures);
- 2) Explore the relationship between the Internet or the Web and English language learning;
- 3) Identify the Web-based facilities that they will use during the course;
- 4) Use an e-mail-based notepad as an online diary within their e-mail accounts.

Organisation:

- 1) Learning mode: Blended mode in class + online mode at home to do an assignment task.
- 2) Face-to-face interactions: individual work/pair work/group work.

Duration: 90 minutes (60 blended mode + 30 online mode at home)

Task One

1. Ask students to review the introduction to the course available at: <http://assitutefl.wikispaces.com/An+Introduction>.
2. Discuss any comments, problems, topics, and/or concerns that students might raise based on their reading of this introduction.
3. Explain to students the nature of the blended mode and learning theories adopted in the course and how work will be like.
4. Guide students into establishing their online diary as part of the e-portfolio assessment.

Task Two

1. Give students this pre-reading task: "In your own words, summarise the reasons that make the Internet useful for English language learning and teaching".
2. Ask students to go to the class Wiki at: <http://assiuttefl.wikispaces.com/Internet+for+English+Language+Learning> to read the text online to find answers.
3. Ask them to work individually to include their answers in their online diaries.

Task Three

1. Divide students into small groups provided that each group includes one expert at least in PowerPoint.
2. Ask students to work together in their small groups to make use of their individual answers to turn them into group reports in the form of PowerPoint presentations.
3. Go around, check, and provide technical support and guidance when needed.

Task Four

1. Quickly introduce to the students the main Web-based facilities that they will use throughout the course.
2. Make sure that students understand in what ways these facilities will be useful.

Task Five

(Home Assignment-Blended Mode Only)

1. Ask students to work independently at home to find any articles, webpages, or PowerPoint presentations dealing with the importance of the Internet for English language learning.
2. Ask students to summarise any new ideas that they might find useful and include that into their online diaries.

Lesson One

Setting the Scene: Literacy and New Literacies

Objectives:

Students should be able to:

1. Explore the meaning of the concept of literacy and its development in the context of history and human civilization;
2. Write, in their own words, their definitions of "Web-based new literacies";
3. Recognise different examples of those Web-based new literacies that they need in the 21st century;
4. Use Google definitions and Wikipedia on an ad-hoc basis to fulfil direct learning needs.

Organisation:

1. Learning mode: Blended mode in class + online mode at home to do an assignment task.
2. Face-to-face interactions: individual work/pair work/group work.

Duration: 90 minutes (60 blended mode + 30 online mode at home)

Task One

1. Ask students to see Google definitions of the word 'literacy' by writing the following in the Google search bar: "define:literacy"
2. Also ask students to see the Wikipedia definitions of literacy, new literacies, and Web-based new literacies.
3. Ask students to work in pairs to discuss these definitions and then report orally what they have understood.
4. Based on this task, introduce with online interactive demonstrations how Google definitions and the use of Wikipedia can be useful as a starting point when students face something new to them.

Task Two

1. Ask students to go to the class Wiki at: <http://assiuttefl.wikispaces.com/New+Literacies> and then read the main question and work in pairs to think of an answer to it.
2. Then, ask students to read my article on ERIC (linked to this Wiki page) to find an answer.
3. After students finish reading this, divide them into groups to find answers to the post-reading questions on the Wiki page.
4. Check that students work in their groups to discuss how to answer these questions and prepare reports.

Task Three

1. While in groups, ask students to open their e-mail accounts to include their reports in their Yahoo Notepads.
2. Shift to online mode to allow students time to employ the Yahoo Notepad in this task by saving their reports in their diaries.
3. Ask each group to send their report as an e-mail to the entire group through the group website: http://groups.yahoo.com/group/searching_for_identity/

Task Four

1. Ask students to read the definitions of Web-based new literacies on the class Wiki and Wikipedia.
2. Ask students to work in groups to write in their own words what they understand from this definition.
3. Ask students to use their online diaries to include their reflections.

Task Five

(Assignment-Online mode only)

1. Ask students to use Google definitions and Wikipedia at home to get definitions for terms related to their TEFL Methodology course that they study this semester (e.g., Teaching English as a Foreign Language or TEFL/TESOL, language teaching methods and approaches).
2. Ask students to write in their online diaries how useful the service was and what new things, concepts, and/or ideas they have learned.

Lesson Two

Let's Bookmark together!

Objectives:

Students should be able to:

1. Use social bookmarking websites (e.g., delicious.com) to save their favourites or bookmarks online so that they can easily access them later on from any computer;
2. Investigate relevant English websites and language learning resources through social bookmarking sites;
3. Use online English dictionaries on an ad-hoc basis to address urgent and specific needs.

Organisation:

1. Learning mode: Blended mode in class + online mode at home or at the computer lab to do an assignment task.
2. Face-to-face interactions: individual work/pair work/group work.

Duration: 90 minutes (60 blended mode + 30 minutes online mode at home or at the computer lab).

Task One

1. Give students the following pre-reading question to stimulate their thinking while reading a text: "What will you do if you want to save your favourite websites so that you can access them from any Pc?"
2. Ask them to read a text on the class Wiki about social bookmarking at: <http://assiuttefl.wikispaces.com/Delicious+for+social+Bookmarking>
3. Encourage students to work in pairs while reading the text to answer the pre-reading question.

Task Two

1. Make an interactive demonstration online on a social bookmarking website (e.g. delicious.com) to show students how to use it.
2. Ask students to work individually to create their own accounts on this website and start using them.
3. Ask students if there is anyone who would like to share ideas or tell anything new about social bookmarking sites (e.g., delicious.com).

Task Three

1. Ask students to work in groups to locate websites related to education and English language learning/teaching using a social bookmarking website like delicious.com
2. Go around and check while students are doing the task and provide help and support if (and when) needed.
3. Ask each group to present the websites they have reached and why they liked them.
4. Ask students to work individually to include these websites in their online diaries to exchange them later with the entire group.

Task Four

1. Ask students to go back to the Wiki account on social bookmarking and identify any words, phrases, and sentences they found difficult to understand.
2. Ask them how they would resolve this, and gradually introduce them to Google translation and other online dictionaries available on another page in the same Wiki:
<http://assitutefl.wikispaces.com/English+Language+Learning+Resources>
3. Ask students to work in groups to discuss which resources were useful and which ones they would recommend to other colleagues and why.

Task Five

(Assignment: Online mode only)

1. Ask students to experiment with delicious for a few minutes at home (or at the lab if possible) and report in their online diaries the new things they have learned.
2. Also, ask students to insert some words, phrases, and/or idiomatic expressions into the online dictionaries available on the Wiki <http://assiuttefl.wikispaces.com/English+Language+Learning+Resources> and report to what extent they found the process useful.
3. Ask them to save these online resources and dictionaries into their delicious accounts.

Lesson Three

Going Global: E-mail communication and e-groups

Objectives:

Students should be able to:

1. Explore the importance of e-mails and e-groups within language learning contexts;
2. Use some of the features/affordances provided by Web-based e-mails and e-groups, with reference to Yahoo Mail and Yahoo Groups, for realistic language learning purposes;
3. Exchange ideas and tips on different language learning topics through e-mails and e-groups in a collaborative learning context;
4. Navigate through other e-groups of interest (e.g. language learning groups in Yahoo Groups) and employ this for emerging learning purposes.

Organisation:

1. Learning mode: Blended mode in class + online mode in the lab or at home to do an assignment task.
2. Face-to-face interactions: individual work/pair work/group work.

Duration: 90 minutes (60 blended mode + 30 online mode at home)

Task One

1. Elicit from students who have been using e-mail how important e-mail is for them, especially when it comes to language learning.
2. Divide students into two groups: Those who know more about e-mail, and those who know less.
3. Based on the previous division, reorganise students into pairs to practise peer tutoring while opening e-mail accounts online to exchange technical experience and ideas on using Yahoo Mail.

Task Two

1. Using online interactive demonstrations while opening your e-mail account, (e.g., Yahoo Mail), present to students the many functions and services that might be useful to them (e.g., calendar, address book or contacts, composing new mail, spell checkers, options, using the help menu).
2. Ask students while working in pairs to simultaneously practice using the different features presented to them.

Task Three

1. Ask students to go to the Wiki page at: <http://assiuttefl.wikispaces.com/E-mail+and+Yahoo+Groups> and read the account written there on e-mail and e-groups
2. While working in groups, ask students to use the Wiki account to discuss the importance of using e-groups, and how they can be used for language learning.
3. Ask students to orally report the results of these discussions.

Task Four

1. Ask students to go to the group website at: http://groups.yahoo.com/group/searching_for_identity/
2. Using the group website, illustrate to them through online synchronous demonstration how to use this Yahoo Group.
3. Make sure that all the participants are members in the group, showing those who have not joined yet how to join the group.

Task Five

(Assignment-Online mode only)

1. Ask students to write an e-mail containing any useful thing related to their study and send it to the entire group.
2. Ask students to visit other groups online which have similar interests and write in their online diaries about their experience.

Lesson Four

To Blog or not to Blog: Share What You Have in Mind!

Objectives:

Students should be able to:

- 1) Explore the range of uses and benefits that Blogs bear for learning in general, and for language learning in particular;
- 2) Start using Blogs to address some language learning needs in the context of their study;
- 3) Contribute to a Blog by making posts and commenting on posts made;
- 4) Practice connective writing by developing threaded discussions related to language learning by means of the Blog technologies.

Organisation:

- 1) Learning mode: Blended mode in class + online mode at home to do an assignment task.
- 2) Face-to-face interactions: individual work/pair work/group work.

Duration: 90 minutes (60 blended mode + 30 online mode at home or in the lab)

Task One

1. Introduce Blogging by giving a short talk for a few minutes as a warming-up, and then pose the following pre-reading question: "How can Blogs be used for language learning purposes?"
2. Ask students to go to the class Wiki page at:
<http://assiuttefl.wikispaces.com/Blog> to read an account on Blogging. (Prompt students to click on internal/external links within the Wiki page that clarify some technical terms and use the "language support" link once dictionaries are needed).

3. Ask students to work in groups to write detailed answers to the pre-reading question, and then, send them as e-mail messages using the group website.
4. Go around and check while students are doing the task and provide help and technical support when needed.

Task Two

1. Using interactive online illustrations through Data show which draw on the already established class Blog available at <http://assiuttefl.blogspot.com>, show students in detailed short demonstrations how to use Blogs.
2. Ask students to work in pairs to experiment with the presented ideas.
3. Go around to check and provide technical support when needed.
4. Make sure that all students have followed the Blog providing any technical assistance that they might need in this respect (e.g., creating a Google account).

Task Three

1. Copy from the group website all students' answers obtained from Task One and post all of them as one post to the class Blog.
2. Ask students while viewing this post to work in pairs to decide upon the best uses of Blogs from their viewpoints.
3. While working in pairs, ask students to comment on the original post and continue a threaded discussion emerging from these comments.
4. Encourage students to exchange ideas by posting and commenting on others' posts while doing the task to develop a threaded discussion.
5. Go around, check performance, and provide support when needed.

Task Four

1. Ask students to report in their online diaries on how they found Blogging and whether they will use it in the future for study purposes and how.
2. Ask students if they have any ideas related to Blogs as far as language learning is concerned.
3. Encourage individual students to come out and present their ideas to their colleagues interactively using the Data show.

Task Five

(Assignment-Online Mode Only)

1. Ask students to work individually at home to reflect on the different uses of Blogs in language learning and choose one of the learning topics they are studying to discuss using the class Blog.
2. Follow up with students online by watching their contributions, commenting on them, and giving feedback and encouragement.
3. If none of the students contributes, choose a topic yourself to stimulate discussion by making the first post (or you can ask an active student to stimulate the discussion).

Lesson Five

Wiki and Wikipedia: Read and Write Collaboratively Online

Objectives:

Students should be able to:

1. Explore the range of uses and benefits that Wikis bear for learning in general, and for language learning in particular;
2. Start using Wikis, especially Wikipedia, to address some language learning needs in the context of their study;
3. Practice collaborative writing/editing by developing written pieces related to any language learning topics on the class Wiki.

Organisation:

- 3) Learning mode: Blended mode in class + online mode at home to do an assignment task.
- 4) Face-to-face interactions: individual work/pair work/group work.

Duration: 90 minutes (60 blended mode + 30 online mode at home)

Task One

1. Introduce Wikis by giving a short talk for a few minutes as a warming-up, and then pose the following pre-reading question: "Should you as a student or academic researcher cite Wikipedia when you take anything from it? Why?"
2. Ask students to go to the class Wiki page at: <http://assiuttefl.wikispaces.com/Wiki+and+Wikipedia> to read an account on Wikis. (Prompt students to click on internal/external links within the Wiki page that clarify some technical terms and use the "language support" link when dictionaries are needed).
3. Ask students to work in groups to write detailed answers to the pre-reading question, and then, send them as e-mail messages using the group website.

4. Go around and check while students are doing the task and provide help and technical support when needed.

Task Two

1. Using interactive online illustrations through Data show which draw on the already established class Wiki available at <http://assiuttefl.wikispaces.com>, show students in detailed short demonstrations how to use Wikis.
2. Ask students to work in pairs to experiment with the presented ideas themselves.
3. Go around checking and providing technical support when needed.
4. Make sure that all students have wikispaces accounts, and that they have been invited to be members in the Wiki (for inviting people: <http://assiuttefl.wikispaces.com/space/invite>) providing any technical assistance that they might need in this respect.

Task Three

1. Based on the account on Wikis that they have already read in Task One, ask students to discuss in pairs the educational uses of Wikis, especially Wikipedia, within language learning contexts with a special reference to teacher education.
2. Create a new Wiki page (e.g., it could be named "Wiki uses"), and then ask students while in pairs to contribute to it by creating a topic themselves.
3. Ask students to feel free to write and edit the content of this new page once anything is written.
4. Let students carry on with the editing and saving process till they are happy with a final product.
5. Go around, check performance, and provide support when needed.

Task Four

1. Ask students to report in their online diaries on how they found using the class Wiki and whether/how they will use it in the future for study purposes.
2. Ask students if they have any ideas related to Wikis as far as language learning is concerned.

3. Encourage individual students to come out and present their ideas to their colleagues interactively using the Whiteboard or Data show.

Task Five

(Assignment-Online Mode Only)

1. Ask students to work individually at home to reflect on the different uses of Wikis, especially Wikipedia, within language learning, and then choose any terms from the TEFL Methodology course, and which they regard as difficult (e.g., reading, skimming, scanning, composition, TEFL, methodology), and use Wikipedia for clarification.
2. Ask students to report on this experience by exchanging ideas and reflections on the class Blog.
3. Also, encourage students to create new Wiki pages dealing with the TEFL Methodology course and which they can collaboratively write and edit later online on a daily basis.
4. Follow up with students online, watch their contributions, edit with them yourself, and stimulate editing by even including wrong information in the new Wiki pages they have already created.

Lesson Six

Google It! Find It!

Objectives:

Students should be able to:

1. Explore the range of features and services that Google provides and relate that to language learning and teacher education contexts;
2. Identify a specific learning need and use search engines like Google to address that need.
3. Use effective techniques for organising keywords to locate relevant data (e.g. using Boolean operators like AND, OR, and “+” to indicate relationships, and using quotation marks for locating exact phrases).
4. Employ strategies for finding the most important or useful information within a website (e.g. using the “Find on this Page” option to locate specific keywords, and reviewing coloured words and hyperlinks).
5. Investigate new search approaches and/or alternative strategies when a previous strategy has not worked (e.g. switching topics, visiting new websites, and trying out new keywords).

Organisation:

1. Learning mode: Blended mode in class + online mode at home to do an assignment task.
2. Face-to-face interactions: individual work/pair work/group work.

Duration: 90 minutes (60 blended mode + 30 online mode at home)

Task One

1. Ask students to read a short passage on the class Wiki to answer the following pre-reading question: "What distinguishes Google from other search engines?"
2. Using online interactive illustrations, demonstrate the services and features that Google provides and the methods to use to locate information, navigate, and deal with results (e.g., deal with what distinguishes Google, Google Search and Advanced Search, Google Books, Google Maps, etc.)

Task Two

1. Ask students to work in groups to identify a current learning/information need based on the courses they study (preferably the TEFL Methodology course).
2. In their groups, ask them to use Google search and other search facilities to locate data to address this need.
3. Go around, check, and provide support when needed.
4. While in groups, ask students to write a report in their online diaries on the learning/information need they had, and how they employed Google to address that need.
5. Ask students to post their reports to the class Blog, and then exchange ideas and continue discussion online at home (extended home assignment).

Task Three

1. Open a space for face-to-face discussions (even in Arabic) on the best ways to locate information using Google or other search engines, and how this can improve language learning.
2. Stimulate students to narrate (even in Arabic) their personal experiences with Google and/or any other search engines, and talk about how they navigate and deal with the returned results.
3. Follow up discussions, prompt it, and ask some students who might have ideas to illustrate online to come out and express themselves through Data Show.

Task Four

1. Ask students to work in pairs online on the Google website to experiment with the ideas they have learned (e.g., locating data, and using Google features and services). (Encourage students to work freely with any ideas they have in mind).
2. Ask students while working online to experiment with any ideas related to language learning or any current needs related to the courses they study.

Task Five

1. Remind students to continue their discussions on the class Blog while at home.
2. Ask them to report on the learning experience of the day and the new ideas they got.
3. Students can use their online diaries to write these reports or send them as e-mail messages to the group website.

Lesson Seven

Online Reading

Objectives:

Students should be able to:

1. Explore the range of features that distinguish online texts (e.g. hypertext, hyperlinks, icons, and multi-dimensional attributes) from print-based texts, and the new literacy skills that the online reading process requires;
2. Look for and work out the overall meaning of a wide range of complicated digital contexts and review each other's work online to provide suggestions and modifications;
3. Focus on a particular question/problem/query to guide the online reading process while activating their prior knowledge or background;
4. Read across an evolving range of online texts through skimming and scanning websites;
5. Navigate efficiently and read purposefully and selectively within an online environment (e.g. by selecting relevant information) to accomplish their objectives.

Organisation:

1. Learning mode: Blended mode in class + online mode at home to do an assignment task.
2. Face-to-face interactions: individual work/pair work/group work.

Duration: 90 minutes (60 blended mode + 30 online mode at home)

Task One

1. Ask students to go to the class Wiki page at: <http://assiuttefl.wikispaces.com/Reading+the+Web+%28Online+Reading%29> and read the text to answer this pre-reading question: "What are those new literacy skills of online reading comprehension that you think you need to develop?"

2. Get individual answers from students after they finish reading.

Task Two

1. Introduce through online interactive illustrations the nature of online reading and the new literacy skills it requires compared with offline or print-based reading.
2. After you Google specific keywords (e.g. reading comprehension or teaching English as a foreign language), make use of the returned results to present the following: a) the features that distinguish online reading from traditional offline reading (e.g. hypertext, hyperlinks, icons, and animations); b) how to skim and scan results to accomplish a direct objective; and c) how to navigate purposefully through a wide range of webpages.
3. Stimulate students to interact with you by sharing ideas, insights, and inquiries.

Task Three

1. Ask students to work in groups using Web-based resources to answer the following question: "What are the reading types and strategies in English?"
2. Stimulate students to apply quick reading and navigation skills (e.g. skimming and scanning) while reviewing Web search results trying to get the overall meaning of the online message.
3. Go around, check, and provide assistance when needed.
4. Ask students to collaborate within their groups to produce reports in answer to the above question and post that to the class Blog.

Task Four

1. Ask students, while working in pairs, to go to the class Blog at <http://assiuttefl.blogspot.com/> to read all reports posted there based on the previous task.
2. Ask them to work online to discuss the different reports posted by all the groups to decide upon a final, unified report that summarises all the ideas in these reports.
3. Go around, check that students are making posts and comments on the class Blog to exchange ideas online, and provide assistance when needed.

Task Five

(Home Assignment-Online Mode Only)

1. Ask students to navigate through different websites to answer these questions:
 - a. What is the difference between teaching grammar *deductively* and teaching it *inductively*?
 - b. What is English for Specific Purposes (ESP) and what are its types or kinds?
 - c. What is the difference between ESP and General English?
2. Ask students to post their answers individually to the class Blog.

Lesson Eight

Be Critical!: Website Evaluation

Objectives:

Students should be able to:

1. Explore the different criteria used for evaluating websites which involve identifying the forms they take (e.g. blog, forum, or advertisement), their general purposes (e.g. entertainment, educational, or commercial), and the types of content (e.g. a book, an article, a brochure, and an archive).
2. Make critical, informed judgments about online information, which include: recognising bias, identifying the authors and their purposes, and distinguishing the commercial content from the academic one.
3. Use clues on a webpage that help with evaluating it as information source (e.g. clues in a URL or web address that help with determining a website location and type).
4. Ask and answer evaluative questions such as: Is the information accurate? Is the author an authority on the subject? Is the information current and timely?
5. Compare and contrast the reliability of the information they find by investigating multiple sources on the same topic.

Organisation:

1. Learning mode: Blended mode in class + online mode at home to do an assignment task.
2. Face-to-face interactions: individual work/pair work/group work.

Duration: 90 minutes (60 blended mode + 30 online mode at home)

Task One

1. Ask students to go to the class Wiki and read this page on website evaluation: <http://assiuttefl.wikispaces.com/Website+Evaluation> to answer this pre-reading question: "How can a webpage URL be useful for evaluating a website?"
2. Check responses guiding students to realise that website evaluation is very important now that anyone can publish anything online.

Task Two

1. Use online interactive illustrations drawing on some examples from Google returned results (e.g. communicative language teaching or CLT) to introduce the criteria of website evaluation and how they can be used while navigating through websites.
2. Ask students to share any ideas, reflections, experiences, or inquiries related to website evaluation.

Task Three

1. Ask students to work in groups to apply these website evaluation criteria to any returned search results. (Ask them to refer back to the criteria on the class Wiki at anytime).
2. Ask students while doing that to report their experiences in their online diaries.
3. Encourage students to post their reports to the class Blog.

Task Four

1. While in groups, ask students to Google some keywords related to language learning (e.g. communicative approach, teaching listening, TESOL, and classroom management).
2. Ask students to review the returned results and copy and paste the URLs of the websites they consider as useful into their online diaries stating the reasons why they chose these websites.
3. Go around, check, and provide assistance when needed.

Task Four

1. Ask students to continue the dialogue on website evaluation on the class Blog at home.
2. Encourage students to exchange ideas and comment on each other's posts and viewpoints.
3. Students may reach through Blogging a final agreement on the most useful and evident criteria that they have used in previous tasks.

Appendix N: Letter Requesting Final Feedback from Participants in the Second Iteration

Dear student,

Hope that all of you are making progress. This is to let you know that we've finished the course today. I'll appreciate it very much if you could provide your feedback to the WHOLE course regardless of the number of times you've attended. This will be very important to my research work, and therefore, I'll be grateful if you give some consideration to this...Please provide your DETAILED feedback by addressing the following:

-Whether you found the course useful and why:

-Whether you acquired any Web-based new literacies, and if so, which new literacies you acquired or mastered as a result of the course:

-The things that you liked about the course:

-The things that you disliked about the course:

-Your opinion about the teaching methods/techniques, learning activities, and the learning theory used for delivering the course:

-The aspects which, in your opinion, need to be improved to make the course more effective in the future:

-Whether the course has helped you with your academic study in the English section and how:

-Whether the course has helped you to improve your English and how:

-Please write here any comments or personal impressions about the course:

Please write above as much details as you can because every word you write will be highly important and influential. I'll be looking forward to hearing from you soon!

Best wishes

Mahmoud

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