

Chapter I

Understanding E-Skills in the FLT Context

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ABSTRACT

The research we report is a pilot study carried to test English as a Foreign Language (EFL) students' reception of an electronic foreign language teaching (FLT) task. In doing so, our aim was to collect information that can allow us to refine our own e-skills model, a model that adapts to the specific learning context of our students by focusing on the objectives, competence, and learning activities that our students engage in, in their everyday learning experience. In this way, our e-skills model is field-specific and context-survey-driven. The factor analysis results suggest that, although our four-factor solution explains much of the variance, the original dimensions of e-skills in our FLT context should be reformulated and further adjusted.

INTRODUCTION: PUTTING E-SKILLS IN THE BROAD PICTURE

Within the context of the European Union (EU), e-skills have become one of the main areas of discussion of the so-called ICT Task Force, which was created in June 2006 to foster a debate on the use of information and communication technologies in all major types of activities across the EU. In

the words of the European Commission, the ICT Task Force is “one of several actions undertaken to create a more favorable EU business environment under the Growth and Jobs initiative proposals for specific actions, such as designing a long-term e-skills strategy and promoting interoperability.”¹ A report produced by this group in October 2006 stated that a “steadily growing demand for people with ‘e-skills’ (ICT skills) is a long-run trend for

business of all sizes and sectors [where] non-ICT related professions will increasingly require at least basic user e-skills.”²² There is, therefore, a strong link between a “knowledge-based economy which has made education and training a lifelong process rather than a one-off activity”²³ and “technology-enabled learning (e-learning) [which] can significantly contribute to lifelong learning and make it a reality.”²⁴

Although e-skills have been successfully implemented in other professional and academic areas, it remains to be seen what the potential for foreign language teaching (FLT) is. In 2003, the European e-Skills Forum was established by the European Commission to promote the effective use of ICT and its successful introduction in all major areas of human activity, especially in the business and industrial sectors. As the focus is the promotion of enhanced labor policies, education and training are key factors in this process. In the European E-Skills 2004 Conference⁵ held in Thessalonica, Greece, e-skills were defined as encompassing a wide range of capabilities (knowledge, skills, and competences) whose dimensions span a number of economic and social areas. However, the ways individuals interact with ICT vary considerably, depending on the work organization and context of a particular employer, or home environment, as the *Synthesis Report of the E-Skills Forum* reckons. This notion of variation will precisely be of great interest in the following paragraphs as we want to shed some light on adjacent or related terms by surveying the FLT and CALL literature that has dealt with them. Moreover, we want to create our own model of e-skills, a model that adapts to the specific learning context of our students by focusing on the objectives, competence, and learning activities our students engage in, in their everyday learning experience. In this way, our e-skills model is field-specific and context-survey-driven.

One of the major challenges of our research is to try and narrow down the usefulness and epistemology of the e-skills term in our field by:

(1) analyzing existing work, (2) submitting our e-skill frame proposal to the learners’ evaluation, and thus (3) in the future, building a data-driven construct that can serve as a starting point for future research. Concerning the first area, once we have discussed mainstream FLT practices, we want to make an effort to outline a notion of e-skill in FLT on three different well-defined areas: (a) new curricular needs and the transformation process (Timuçin, 2006), (b) the well-known normalization issue first introduced by Bax (2003), and (c) the new model for communicative competence (Kenning, 2006) and the need to establish a social context for the adaptation of ICT skills to continuous change. This component of our research is distinctively part of a theory-informed process which seeks to define problems explicitly (Widdowson, 2003).

Regarding the second item above—submitting our e-skill frame proposal to the learners’ evaluation—we want to feed on the discussion above to later on submit to our Common European Framework (CEF) Level C1 university learners of English a framework for the understanding of e-skills in their learning process. Our drive here is to adapt an e-skills scheme that meets the specific needs of the students mentioned previously. This scheme goes beyond the widespread *user skills* approach that covers the utilization of common generic software tools and the use of specialized tools supporting functions within industries other than the ICT *industry*. We will first stay on more familiar ground by going deeper into the research carried out in the field of FLT and CALL.

BACKGROUND

FLT Mainstream Context

Existing terms such as *skill*, *strategy*, and *computer expertise* have traditionally been and still are of paramount importance to the field of language learning and teaching. In particular, the concept

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of skill is broad and appears in several different domains within FLT. In general terms, a skill can be defined as “a special ability to do something well, especially as gained by learning and practice”; expertise is a “great skill in a specific field,” while strategy is “skillful planning or a particular plan for gaining success in a particular activity.”⁶ Other definitions for these terms are shown in Table 1 (entry number is provided).

The different definitions vary in their appraisal of the actors and activities that these terms involve. As the definitions from Table 1 and from the *Longman Dictionary of English Language and Culture* show, these three terms are well related. If we take the term *skill*, we see how the terms *ability* and *training* are in the core of most definitions. This goes to show that, as we will later see in the discussion of skills within the FLT context, those who want to achieve ability in a field need to go through the appropriate training and practice. As for expertise, it is clear that the notions of *great skill* or *special knowledge*

are common. As inferred from these definitions, there is a relationship between skill and expertise, as there is a question of degree that differentiates them. Therefore we see that expertise is situated along the know-how ladder in a higher position than skill, as expertise is related to the mastering of a skill. Our third term, *strategy*, is related to the military field and has to do with the development of a plan to achieve a goal or success on a particular activity. The most frequent terms in the definitions we collected are *success* and *plan* or *planning*. As students are expected to achieve a certain degree of mastering of the language—that is, developing certain skills or even achieving an expert level—strategies will be instrumental in the process.

In FLT, *skill* is used to refer to the four basic language skills: listening, speaking, reading, and writing. Mainstream FLT authors (Hedge, 2000, among others) devote special attention to each of the skills separately by considering their main features by offering models to manage them in

Table 1. Term definitions

	Skill	Expertise	Strategy
OED ⁷	7. Knowledge or understanding of something.		2. The art of a commander in chief, the art of projecting and directing the larger military movements and operations of a campaign. 3. The office of a strategies.
COBUILD ⁸	...special ability in a task, sport, etc., esp. ability acquired by training. 2.2. something, esp. a trade or technique, requiring special training or manual proficiency.	1. Special skill, knowledge, or judgment; expertness.	2. A particular long-term plan for success, esp. in business or politics. 3. a plan or stratagem.
WEBSTER'S ⁹	1. An ability that has been acquired by training. 2. Ability to produce solutions in some problem domain; “the skill of a well-trained boxer”; “the sweet science of pugilism.”	1. Skillfulness by virtue of possessing special knowledge.	1. An elaborate and systematic plan of action. 2. The branch of military science dealing with military command and the planning and conduct of a war.

class. In this traditional approach to the study of skills, a division into receptive skills (reading and listening) and productive ones (speaking and writing) is common. If we bear in mind the general definition of skill, we can see that, up to a point, there is a link between the way in which Hedge (2000) conceives the development of reading skills and the concept of skill itself. This link is seen in the two senses in which Hedge conceives reading as an interactive process: from a top-down perspective (schematic knowledge) or from a bottom-up (language knowledge) perspective. In the first case, reading is seen as interactive because the student links words or expressions found in the text with his schematic knowledge, or as Hedge (2000) quotes from Cook, his “mental representations of typical situations...used in discourse situations to predict the contents of the particular situation which the discourse describes” (p. 190). Therefore, if a skill is a special ability obtained through practice or learning, we could say that *practice* has a clear influence on the development of schemata in the mind of the learner, and consequently on the development of the skill as a whole. Further, the richer those mental images are, the greater the possibility of establishing useful relationships between them and elements from the reading task, which would put the student in a better position to develop the task successfully and eventually to achieve a good command of the skill under consideration.

From a bottom-up perspective, reading is an interactive skill because of the fact that a good knowledge of the language system makes the student able to recognize lexical items or syntactic structures he finds in the text, helping him to make sense of it, as Hedge (2000) states. In this case, we see the importance of practice and learning, the two ways to develop a skill. When acquiring reading competence, the greater the knowledge about the language, the easier to identify and understand certain words or structures in the text; in other words, declarative knowledge plays a great role in skill developing (Williams, 2001; Ellis,

Basturkmen, & Loewen, 2002). A second relevant aspect in her view is the purpose of reading. There are different categories of reading depending on the intention of the reader, such as *receptive reading*, *reflective reading*, *skim reading*, *scanning*, or *intensive reading*. Each of these types of reading involves the use of certain strategies, for instance skimming is largely based upon a top-down strategy. Traditionally, reading tasks have consisted basically of providing students with a text that has been assessed by means of comprehension questions. This is an interesting area for researchers that want to go deeper into the new models of communicative competence that emerge as a result of new communication paradigms (Kenning, 2006). What used to be considered a static skill could now become a more complex and evolving concept that requires constant re-definition and skill scaffolding.

Certainly, not all the skills are managed in the same way by FL practitioners. Hedge (2000) points out that the writing skill is “often relegated to homework and takes place in unsupported conditions of learning” (p. 301). She goes on to suggest the need to raise the students’ awareness on the existence of certain strategies, and to encourage them to develop these strategies whereby they can become more efficient writers. It is in this context that strategies and skills converge. As we saw at the beginning of this section, a strategy is a “skillful planning or a particular plan for gaining success in a particular activity.” Hence the importance of developing these strategies¹⁰ to gain a good command of this skill in particular. As happens with reading and listening, practice and the use of declarative knowledge of the language serve as facilitators in the development and improvement of writing. Besides, research shows that attention to form can be integrated successfully and is effective in programs where the emphasis is on communication (Williams, 2001).

If we move from mainstream perspectives, such as those of Hedge (2000) or Oxford (2001), to those maintained by Widdowson (2000, 2003),

we find certain disparity in the way of facing skills. In the entry for *Skills and Knowledge in Language Learning*,¹¹ Widdowson diverges from the traditional view of the four-skill division as the touchstone for language learning. This author maintains that, although this division is “well-established” (Byram, 2000, p. 549) in determining the objectives of language learning, it might not be “well-founded” (p. 550) and introduces the concepts of *mode* and *medium* of manifestation. Widdowson states that the division of skills in productive and receptive skills is merely based on the channel or medium of manifestation, aural or visual, and that there is a need also to consider the mode of interaction and not only the roles of the participants in communication as “physical producers or receivers” (p. 550). Consequently, the author defends that *literacy* in a language has to do with the ability of the student to act according to the principles that rule different types communication—that is, the modes of interaction, whether written or oral. Again, we find some grounding to re-define the notion of skill as a dynamic concept.

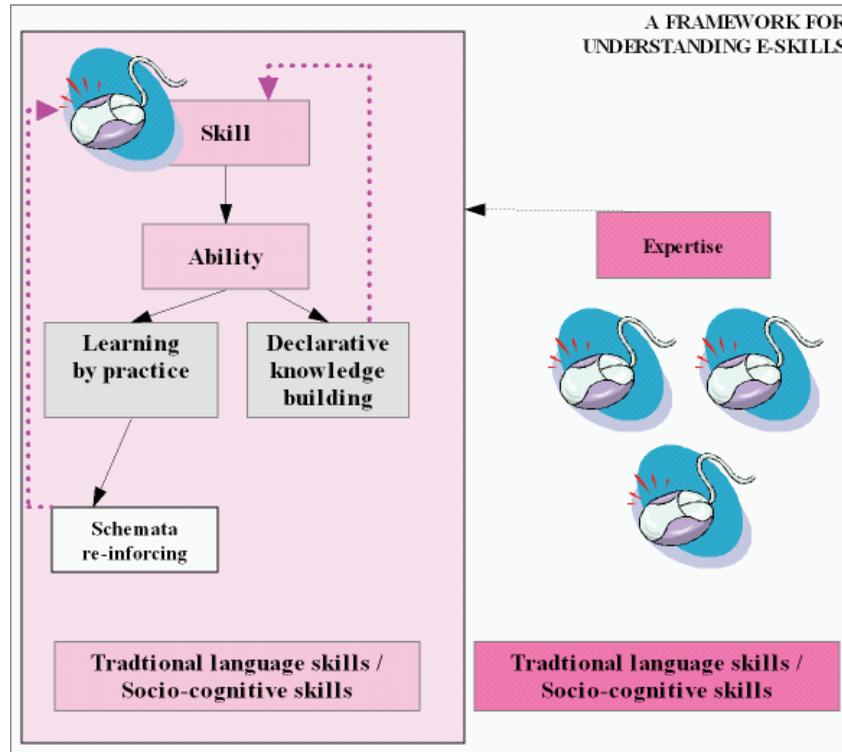
Widdowson (2000, 2003) holds the opinion that learners should be taught how language is used by native speakers in different social contexts and that an appropriate way to attain this is by means of *task-based learning*. Tasks are intended to put the students in a position to use language in a real-like communicative situation, hence the focus on the adequacy of language to each social context and not only on the linguistic code in isolation—as structuralists defend. Nevertheless, this position poses the problem of the impossibility to teach the appropriate for every communicative context. In Widdowson (2003) we find a discussion of the limits of the well-known presentation-then-practice-then-production (PPP) scheme and classroom task-based learning. Despite the pedagogical implications for the design of material and methodology, which evidently lie outside the scope of this chapter, the fact that real issues and real activities enhance language

learning leads us to a felicitous occasion when we suddenly discover that most of the e-skills are, by definition, *real* tools that *real* people use on an everyday basis. Widdowson’s authoritative view matches the expectations posited on the socio-cognitive model of CALL. Authors such as Kern and Warschauer (2000) stress the role within this paradigm of computer networks that allow for “interactive human communication” (p. 11), and the incorporation of “online activities for their social utility as well as for their perceived particular pedagogic value” (Kern & Warschauer, 2000, p. 13). Some CALL-specific terms that we will review later fall within this paradigm.

While the scope of *skills* in the phrase *language skills* remains ample, the status for *expertise*, or more specifically, *computer expertise* (CE), is similar. However, despite the gradation of this concept, it remains central in the area of CALL as it is an essential requisite to the implementation of ICT-based learning. If expertise is “a great skill in a particular field,”¹² computer expertise is, accordingly, a great ability in the use of computers. It is now when we see a more clear reflection of what we posited in the previous introduction to the concepts of skill, strategy, and expertise. From the discussion above emerges a model for understanding these terms which, *a priori*, is independent of the CALL teaching model (see Figure 1).

So, how skilled is an *expert*? How expert should students be in order to show CE? The following definition taken from Ruiz Madrid (2005), which quotes the U.S. Department of Education, is clarifying: computer expertise is the group of “computer skills and the ability to use computers and other technology to improve learning, productivity and performance” (p. 133). In the same work, we find a division of CE according to the foundations of the NETS (National Educational Technology Standards) Project. The NETS Project has been conducted within the International Society for Technology in Education (ISTE) and aims at defining “standards

Figure 1. A framework for understanding e-skills



for students, integrating curriculum technology, technology support, and standards for student assessment and evaluation of technology use.”¹³ Among these standards we find¹⁴:

1. Basic operations and concepts,
2. Personal and professional use, and
3. Applications in instruction and learning.

The first heading includes “running software, managing and manipulating data, publishing results and evaluating the technology”; the second includes the “use of productivity tools, telecommunications, assisting devices for problem solving, collaboration, research and lifelong learning” (Ruiz Madrid, 2005, p. 134). The third heading is more oriented towards the integration of “a variety of software applications, and learning tools,”¹⁵—that is, towards the application of “computers and related technologies to support

instruction.”¹⁶ Different studies have incorporated CE in their analyses: Sahin and Thompson (2006) report low levels of CE in a study of college teachers as a factor that deters the implementation of CALL in the curriculum. Beatty (2002)¹⁷ explores the notion of expertise in the area of collaboration and states that “determining expertise is classified as a collaborative strategy because it helps to clarify what each partner knows or does not know about a task. Learners who start off by determining expertise are better able to collaborate because they are better positioned to evaluate what they and the other person knows.” Expertise here is seen both as necessary and an element for rapport-building in peer or group work. However, it seems to us that the very fact that CE is negotiated and established plays against the interest of CALL as it indicates that normalization is yet to come (Chambers & Bax, 2006). It follows that, in the field of CALL, expertise performs a similar role as skill does in the field of FLT.

Finally, two additional concepts related to the area of computer expertise address the new online collaboration paradigm: *electronic literacy* and *skills of electronic literacy*. The former, coined by Chapelle (2001, p. 2), refers to the “communication in registers associated with electronic communication,” while the latter comprises “the skills needed for successful interaction online: for example, how to participate in online discourse and how to access the technology” (Simpson, 2005, p. 327). Simpson’s study is much based upon Vygotskian theories on language learning through social collaboration, as he proposes that this social collaboration cannot only be applied to language learning in particular, but also to learning in general. Accordingly, in the same way interaction allows students to improve their language skills, it can also have a very positive impact on their *skills of electronic literacy*, helping them to enhance what Chapelle called “electronic communicative competence” (Simpson, 2005, p. 330). There is, consequently, a link between both Chapelle’s and Simpson’s concepts, since *skills of electronic literacy* can be placed within the broader area of *electronic communicative competence*. Once more, there is evidence of the importance of the impact of new technologies in most basic aspects of our everyday lives, and of the importance of developing students’ electronic skills to an optimal level that allows us to get the most out of the ICT resources available for EFL.

Simpson’s study was grounded on basic concepts of Vygotsky’s Socio-Cultural Theory. Vygotsky considers collaboration as the key to learning and proposes the need for scaffolding, that is, “the process of supportive dialogue which directs the attention of the learner to key features of the environment, and which prompts them through successive steps of a problem” (Mitchell & Miles, 2004, p. 195). The point Simpson makes is that this scaffolding or collaboration can be extrapolated to the acquisition of the basic skills necessary to work with computers within

the field of language learning. Thus, he splits skills of electronic literacy into the *knowledge of discourse management* and the *knowledge of technology*, encompassing “both access to the technology—the computer hardware and an Internet connection, and also a technical capacity enabling a participant to download particular software, to log on to the system and to join an online group, among other things” (Simpson, 2005, p. 337). Both types of knowledge can be achieved through collaboration in a computer-mediated communication environment.

To finish this overview on computer expertise, we should briefly mention the present-day situation and the new needs of students. Chapelle (2001) draws our attention to the fact that the evolution of technology has an effect on language learning and, therefore, current trends should take into account the new needs of students. One of the authors who has devoted his attention to the way in which the evolution of technology has a direct effect over students’ lives in general is Warschauer (1999). He maintains there is a direct relationship between the use of ICT resources in the classroom and multi-literacies, including electronic literacy, which all language users need in the Western World. This position represents a step forward, as Warschauer considers literacy in new technologies as something that most students live with in their everyday routine.

As we infer from the three perspectives we have mentioned so far, great advances in this field have taken place over the past 20 years. We see how we have moved from a position where the main interest was the access or lack of access to technology in a educational context, from an intermediate position concerned with the use of such technology in everyday life to a more recent trend which assumes that the use of technology is common to most students and centers around the specific needs of students using ICT in an educational context. This is to have an effect on the way e-skills spread across education as they become more visible. In this respect, research

shows that the more familiar students are with computer use, the more readily they will incorporate e-skills into their skill repertoire (Fernández Carballo-Calero, 2005).

The last concept we are concerned with is *strategy*. As we have seen beforehand, a strategy is a sort of plan designed to achieve an aim, specifically a skillful planning or a particular plan for gaining success in a particular activity. We assume here that this concept is strictly related to the field of language learning in general and to the field of CALL in particular, for adult students use, conscious or unconsciously, certain plans to achieve their goals when learning. In a similar way and more closely related to the topic of language learning, strategies are defined by O'Malley and Chamot, quoted in Vinther (2005, p. 253), as “the special thoughts and behaviors that individuals use to help them comprehend, learn or retain new information.” He adds that “a strategy for learning must be positive, since the objective is to point to elements which purposely and encouragingly help the student forward towards the goal of accomplishing new understanding and competence.” This remark is worth mentioning, since it clearly reflects the nature of the term strategy at its most essential meaning. If we go deeper into the field of strategies within language learning, we see how Vinther (2005) considers three different types of strategies in his analysis of students' use of CALL: affective strategies, cognitive strategies, and memory strategies. Affective strategies are the student's *emotional* thoughts or utterances as a result of the student's interaction with the computer. Within affective strategies, Vinther differentiates indirect statements (sighs and laughs) from direct statements (verbal utterances). As part of future work into CALL-based tasks and e-skills, the individuals that took part in our research also were invited to express their cognitions as regards the different activities being completed. Cognitive strategies are instrumental in integrating old and new knowledge and restructure information, and

include reasoning inductively and deductively, guessing from context and analyzing. In turn, memory strategies are usually the first step in learning declarative knowledge and “help learners link [in a simplistic, stimulus-response manner] a new item with something new” (Oxford, 2001, p. 167).

So far, we have tried to go deeper into the definitions of skill, strategy, and computer expertise, three concepts of huge importance that often appear in the literature of CALL. Our aim was to delimit each of them independently, and to clarify some of the possible relationships and overlapping among them that may sometimes cause problems in approaching the topic of instructed second language acquisition (c.f., skill and expertise distinction is neutralized in CALL).

Our own scheme proposal, evaluated by the learners themselves, seeks to offer students and the FLT community an informed proposal for the effective integration of so-called e-skills in our own FLT context. It is this evaluation on the part of learners that we discuss in depth in this work, together with the description of the process that we have adopted throughout our experience. Based on the discussion above, we decided on the rationale for our e-skills model as integrative of two types of ICT skills—e-communication and computer user skills—as well as FL-specific skills and attitudinal/strategic indicators.

AIM OF THE STUDY AND WORKING DEFINITION FOR E-SKILLS

As the main aim of our research is to establish the foundations to understand e-skills in the FL classroom, we have integrated the discussion presented above into a model that can be submitted to advanced learners of English. This model subsumes the previously discussed notions of skill in FLT, that of (computer) expertise and that of

strategy under the same heading: e-skills. One of the main tenets of the e-skill approach is that it does not exclude non-ICT practitioners. Rather, it includes all activity sectors and is user oriented: e-skills are “the capabilities required for effective application of ICT systems and devices by the individual. ICT users apply systems as tools in support of their own work, which is, in most cases, not ICT.”¹⁸ From this, it follows that there exists an array of capabilities that matches the efficient use of ICT systems in performing tasks that are field specific. The challenge was to generate an appropriate e-task instrumental in identifying these context-bound capabilities/abilities (Chambers & Bax, 2006). We want to emphasize the fact that e-skills support individuals’ work, which presents itself a propaedeutic value of interest and in connection with Widdowson’s (2003) notion of learning English as a pedagogic construct where personal investment is a most crucial feature.

Based on the discussion presented earlier, and in the specific context of our research, the operational notion of e-skills that we have adopted can be formulated as the group of abilities that encompasses both top-down as well as bottom-up language processing in a digital learning environment and which are instrumental in the process of FL task resolution.

SETTING FOR THE RESEARCH

The target population informing this work is a group of third-year university learners of English (n = 9, mean age = 22.0) who are taking an undergraduate course in English Studies at the University of Murcia, Spain. Before leaving tertiary education, these students will be taking two further years. Their curriculum is one that emphasizes a balance between literary and cultural studies, on the one hand, and linguistic and language on the other.

RESEARCH METHODOLOGY

As already stated, in this work we report on a pilot study carried out to test the students’ reception of a CALL-based task in order to collect information that can allow us to refine our e-skills model. Based on Timuçin’s (2006) guidelines for the implementation of CALL in FLT, we believe that this process must be: (a) teacher driven, (b) student oriented, and (c) context specific (following Chambers & Bax, 2006). The steps that were taken are summarized in Figure 2 and discussed immediately after.

Analysis of Subject-Specific Objectives

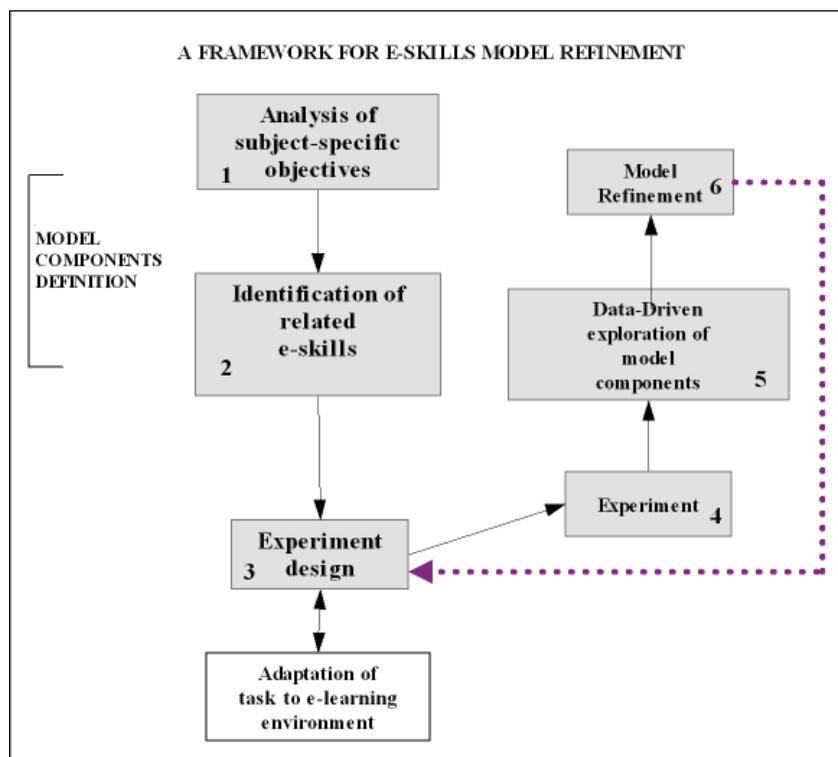
Our research analyzes the feedback of students (n = 9) taking a compulsory course of English language (CEF C1 level) *01D6 Lengua Inglesa III during the 2006-2007 academic year*, a course where CALL-driven classroom instruction plays no significant role. It must be said that this is the last English course that these students will take before their graduate studies and, accordingly, they are expected to achieve the C1 level mentioned above, which posits a great burden in terms of study hours and exam preparation.

As the e-skills model is highly dependent on the field of application, we set out then to identify the objectives of our academic subject where e-skills could make a relevant contribution.

Identification of Related E-Skills

The first group of objectives is *specific objectives related to the analysis of the language as a code*. This is a very comprehensive block encompassing both theoretical and practical objectives of a lexical-grammatical and pragmatic nature. Thus, the acquisition and use of advanced vocabulary, the noticing of nuances of connotation and denotation, the command of different communicative

Figure 2. A framework for e-skills model refinement



domains, and the difference of formal and informal registers are areas covered by this first block of objectives. For these objectives to be fulfilled in a CALL-driven environment, students are expected to check word meanings, identify specific contexts of use, and find collocates. Among the varied electronic resources existing, the ones that are more closely related to the development of this first objective are online dictionaries, online thesauri, concordancers, or using the Web as a corpus.

The second block of objectives is *specific objectives related to reading*. Here we find direct reference to some aspects covered before in the background information section, such as the one concerned with approaching different types of reading in the communicative process. For these objectives to be fulfilled in a CALL-driven environment, students are expected to find both general and context-specific information, get the gist of the topic dealt with in the text, check word meanings,

and interpret prosody. Among the varied electronic resources existing, the ones that are more closely related to the development of this second objective are online dictionaries, encyclopedias and newspapers, and online corpora.

Table 2 shows the subject objectives where we found that implementing CALL-based activities would be feasible, as well as their corresponding, well-delimited functionality.

These functionalities have been described as micro skills (Pérez-Paredes et al., 2003) as each of them requires some sort of specific, well-limited learning and practice for its mastery.

Experiment Design

Once we had decided on the target objectives underlying the e-task, we went on to adapt a set of activities from the subject course book. To minimize the impact of the novelty of a CALL-

Table 2. Language course objectives where CALL can make a contribution

E-RESOURCES	FUNCTIONALITY
<p>Online Dictionary Descriptor: dictionary Search</p>	<ul style="list-style-type: none"> • Check meanings or uses
<p>Online Thesaurus Descriptor: search & find a suitable word</p>	<ul style="list-style-type: none"> • Find similar words or words within the same semantic field
<p>Concordancer Descriptor: search & build hypothesis on which words co-occur together</p>	<ul style="list-style-type: none"> • Find concordances of words • Find collocates • Find contexts of use • Interpret prosody
<p>Webcorp Descriptor: search & build hypothesis on which words co-occur together</p>	<ul style="list-style-type: none"> • Find concordances of words • Find collocates • Find contexts of use • Interpret prosody
<p>Online Encyclopedias Descriptor: search & select useful info</p>	<ul style="list-style-type: none"> • Get information on reading, speaking and writing topics, facts, and so forth • To solve doubts
<p>Online Newspapers/Magazines/Journals Descriptor: search & select useful info</p>	<ul style="list-style-type: none"> • Get information on writing topics, facts • Observe the register of different types of texts

based task, we decided that we should keep this adaptation as close as possible to the original format of activities in the course book. In adapting this group of activities to a CALL environment, our main goal was to move the focus of the traditional classroom-based book activities from a pair/group work, teacher-managed setting to a more individualized and constructivist computer-mediated learning environment. A rationale for the e-task that we designed can be found in Figure 3.

For operational purposes, we decided to focus on the reading skill as the starting point for our task. From the perspective of the researchers, the

fulfillment of this task should require putting into practice the micro-skills in column 2 of Table 3. The task matches the reading skills can-do statement for ALTE¹⁹ L4 / CEF-C1: “the student can read quickly enough to cope with an academic course, to read the media for information or to understand non-standard correspondence.”

The students were given no indication on the resources to use, their URLs, or their names. In this way, we wanted to give them the chance to approach the task in exactly the same way as they would have done if they had to complete it either in the classroom, where no reference resources are available, or at home, where they are free to

Figure 3. A description of the e-task

The students involved in the experiment were asked to complete a series of reading comprehension and vocabulary activities adapted from their current text book: Jones, L. 2002. Progress to Proficiency. Cambridge: Cambridge University Press.

We created a hypertext resource containing the text itself and a series of multiple-choice questions which intended to test the understanding of the text. We also gave them two Microsoft Word™ documents containing two additional vocabulary activities that should be filled in and saved. The first vocabulary activity consisted of a selection of six lexical items from the text for which the students had to provide both their in-context meaning and their contexts of use (*dip into*, occurred in the context of *I would sit in the library for a whole day, dipping into one book after another, often with glazed-over eyes*), whereas the second one asked them to set the differences in meaning of three words from the text whose meanings are somehow related (*task, strategy and application*). For all three activities, students were encouraged to use the electronic resources they considered necessary to fulfil the tasks.

Due to the nature of the activities, we expected learners to use some of the electronic resources described in Table 1.

decide on the references and materials to use. One of the issues that we want to address is whether our students perceive CALL as normalized (Bax, 2003) and do it in the very context where their learning takes place (Chambers & Bax, 2006, p. 467). In so doing, we purposefully stressed the gap between classroom book-driven activities and our proposal for a CALL-driven implementation.

Data-Collection Tool and Administration of the Task

During the fourth week of the second term of the 2006-2007 academic year, students were instructed to access the computer lab facility and invited to sit down at computer stations that had already been set up by the researchers in order to avoid tedious computer starting operations. Nine students out of a potential total of 12 attended the two-hour lesson. It must be stressed that the students had not been informed that this task would be carried out in the computer lab.

The collection tool we designed for our research is found in Appendix A. The tool reflects

the dimensions that we consider of relevance for the e-skill model we want to evaluate. As in the case of other experiences (Timuçin, 2006), we designed a questionnaire intended to collect the students' perception of the task and their view of the skills involved in its resolution. The questionnaire was administered immediately after the completion of the task.

The questionnaire reflects our e-skill rationale (see Table 3).

The questionnaire gathers information from well-limited areas discussed earlier in this work. First, we find the ICT-skills components relevant to our field, which include e-communication ICT skills and computer use skills. They differ in the role and purpose given to the computer. Second is the FL-specific component, where we have included items that measure the use of computers for academic purposes (5), software use, including a browser and a word processor (16), perception of difficulty of the task (17), time management in connection with the task (18), and creativity in using resources to solve the task (24). Third, a group of items point out to the sort of attitude

Table 3. E-skills rationale

	Relevant ICT Skills: E-Communication	Relevant ICT Skills: Computer Use	FL-Specific Skills	Attitudinal/Strategic Indicators
	ICT SKILLS			
	COMPONENT 1	COMPONENT 2	COMPONENT 3	COMPONENT 4
Items	2 4 6 7 8 9 10	1 3	5	
Likert scale description	1 (never) to 5 (several times a day)			
Items		11 12 13 14 15 19 21* 22*	16 17 18 24*	20 23 25* 26 27 28 29
Likert scale description		1 (strongly disagree) to 5 (strongly agree)		

and CALL-oriented planning manifested by the learners in approaching the e-skill task: we expect item 20 to play no role on the use of e-skills, but the rest fully address attitudinal variables such as perceiving computers as time savers (23), preferring working with computers to traditional study methodology (25), enjoying e-tasks more than book-based tasks (26), considering the lab a useful tool for learning (27), having a desire to engage in further e-tasks (28), and relating the e-task to new ways of approaching the FL experience (29). The values of the items with an asterisk are reversed when computing their means.

2,4,6,7,8,9,10. The questionnaire can be found in Appendix A.

In an exploratory study like this (n = 9), the median is even more revealing than the mean itself as it gives us the *typical* distribution of answers. The analysis of these tables shows that the items that obtain lower scores are those that involve the use of computers in the university context: items 3 (*I use the university computer labs.*) and 5 (*I use computers for academic purposes.*). The educational institution itself is not free from

RESULTS

Descriptive Data

Tables 4–7 show the mean values of the scores for every component and item. For every component (1,2,3,4), you can find below the mean and the median scores for each of the items. For example, Table 4 shows the mean and median values for the items (Q) in component 1, that is,

Table 4. Frequency scores for e-skills component 1

	Mean	Median
Q2	4.22	4.00
Q4	3.44	4.00
Q6	3.78	4.00
Q7	3.56	4.00
Q8	2.00	2.00
Q9	3.67	4.00
Q10	2.11	2.00

Table 5. Frequency scores for e-skills component
2

	Mean	Median
Q1	3.44	4.00
Q3	2.33	2.00
Q11	4.11	4.00
Q12	4.11	4.00
Q13	3.89	4.00
Q14	4.11	4.00
Q15	3.44	4.00
Q19	3.00	3.00
Q21	2.33	2.00
Q22	3.22	3.00

Table 6. Frequency scores for e-skills component
3

	Mean	Median
Q5	3.11	2.00
Q16	4.00	4.00
Q17	3.56	4.00
Q18	3.11	3.00
Q24	4.22	4.00

Table 7. Frequency scores for e-skills component
4

	Mean	Median
Q20	3.11	3.00
Q23	3.67	4.00
Q25	3.11	4.00
Q26	3.56	3.00
Q27	3.89	4.00
Q28	3.89	4.00
Q29	3.89	4.00
Q30	3.89	4.00

criticism, as computer facilities simply are not up to standard, according to our survey. It is interesting to note that for item 8 (I use my e-mail to communicate with my teachers), the mean and the median are the same, which posits a great challenge on instructors in our research context. Item 10 (*I use videoconference (Messenger, VideoCam, Skype, etc.)*) shows that computer-mediated videoconferencing is still in the process of becoming a major communication channel for our students, while item 21 (*Speaking while doing the activities made me feel uncomfortable*) shows that multitasking, a feature of professional e-skills, is still a problem.

In the other items, the medians are 4, indicating either high frequency or a strong agreement on a positive polar statement. Scores for items 18 (*I had enough time to complete the activities*), 19 (*The performance of the computer was satisfactory*), and 20 (*The design of the task was attractive*) point to the fact that students would have liked to have a longer period of time to complete the task (18) or would have liked to use a more cutting-edge PC.¹ Item 22 (*I feel lost when working with Internet resources*) did not cast a polarized result, and neither did item 26 (*Working with a computer makes the activities more attractive than working with the textbook*), with a mean score of 3.56, which shows that while having the computer expertise to manage a computer, students see CALL as distant. Item 29 (*This experience has opened up new ways into learning English*) shows that close contact with a CALL-driven task may encourage learners to further use e-skills in their everyday language learning.

Data Reduction Method

In order to corroborate the existence of underlying, latent dimensions in our e-skills model, we performed a factor analysis to identify whether our insights actually are translated into the questionnaire we designed. Factor analyses are widely used in social and empirical sciences to identify and

reduce the dimensions of a given construct. By performing this analysis, a multi-faceted problem can be better studied and understood. Lim and Shen (2006, p. 217) used a principal component factor analysis with varimax rotation “in order to identify relationships among items, and therefore,

the subscales or factors which could be taken as summary measures of the items.” A principal component analysis rests upon the identification of linear combinations of variables, the items included in the questionnaire, looking for a maximum variance in each combination. In our case we performed the same statistical analysis although we specified a four- and a three-factor solution to gain insight into our questionnaire dimensional nature. Table 8 shows the rotated matrix which emerged from the analysis. This is the starting point for the identification and classification of the dimensions—that is, the factors that explain the construct, in other words, the dimensions that make up our model.

Table 8. Rotated matrix, four-factor solution

	PA Components			
	1	2	3	4
Q1	,306	,773	-,391	-,157
Q2	,799	,398	,007	,396
Q3	,805	-,102	,295	,271
Q4	,388	,326	-,155	,356
Q5	,931	,030	-,095	,035
Q6	,784	-,209	,278	,100
Q7	,684	,147	,472	-,083
Q8	,630	,018	,300	,682
Q9	,678	,593	,067	,121
Q10	,154	-,363	,709	,492
Q11	,744	,215	-,149	-,162
Q12	,166	,006	,147	-,796
Q13	,326	-,027	,743	,075
Q14	-,332	-,739	-,007	-,053
Q15	,819	,184	,115	-,408
Q16	,216	-,190	-,921	,188
Q17	,230	-,049	-,078	-,660
Q18	,286	,234	,795	,343
Q19	-,341	-,139	,402	-,622
Q20	,021	-,051	-,048	-,450
Q21	-,062	-,167	,782	-,276
Q22	,757	,392	,027	-,149
Q23	,114	,767	,291	-,301
Q24	-,723	-,301	,176	,230
Q25	-,088	,753	-,153	,132
Q26	,042	,807	-,097	,391
Q27	,378	,804	,138	-,025
Q28	,243	,720	-,100	,341
Q29	,033	,617	,283	,564
Q30	-,316	,710	,342	-,479

The loading index is the correlation coefficient between the item in the questionnaire and the factor. For membership purposes, it is irrelevant whether the loading polarity. All items above obtained >.30 loadings in at least one of the factors. This is the factor structure that emerges from our data.

The second component underlying our proposal, *Relevant ICT skills: Computer use*, appears scattered in all factors, while components 1 and 3, *Relevant ICT skills: E-communication* and *FL-specific skills*, this latter to a lesser degree, retain many of their original members. Factor 4 presents little coherence and is a candidate for reformulation.

FUTURE TRENDS

Felix (2005) has pointed out that the focus of Computer-Assisted Language Learning research has increasingly shifted from an interest in the learning efficiency and new technologies to an interest in the very process of learning. This is the area that will develop more significantly in forthcoming years.

As formal learning becomes more influenced by social work and entertainment collaboration frameworks, it seems essential to incorporate

Table 9. Members and loadings for Factors 1–4

FACTOR 1		FACTOR 2		FACTOR 3		FACTOR 4	
Q5	,931	Q26	,807	Q18	,795	Q8	,682
Q15	,819	Q27	,804	Q21	,782	Q20	-,450
Q3	,805	Q1	,773	Q13	,743	Q19	-,622
Q2	,799	Q23	,767	Q10	,709	Q17	-,660
Q6	,784	Q25	,753	Q16	-,921	Q12	-,796
Q22	,757	Q28	,720				
Q11	,744	Q30	,710				
Q7	,684	Q29	,617				
Q9	,678	Q14	-,739				
Q4	,388						
Q24	-,723						

these factors into e-skills models that reflect more faithfully the engagement of a new generation of students with new technologies. These, and particularly the spread of Web 2.0, are to have an important impact on the range of skills that learners bring to the foreign language classroom. New models of e-skills in FLT should take into account research frameworks such as the one included in this chapter, as well as learners’ technology use prior or simultaneous to instruction and the role of collective knowledge and collaboration. In this way, relevant contributions can be made to a new communicative competence (Kenning, 2006) by dealing with the traditional marginalization of technological matters in the descriptions of communicative competence in FLT.

CONCLUSION

This research presents the results of a pilot study where an e-skill model questionnaire was answered by language students so as to help our understanding of the relationship between non-traditional skills and new CALL environments. By doing so, we intended to assess the e-skills dimensional structure that underlies the completion of language e-tasks designed by FLT instructors and implemented in CALL classrooms.

The results suggest that, although the four-factor solution explains 74.9% of the variance, the different original dimensions of e-skills in our FLT context—(1) *Relevant ICT skills: E-communication*, (2) *Relevant ICT skills: Computer use*, (3) *FL-specific skills*, and (4) *Attitudinal /strategic*

indicators should be reformulated and further adjusted. Our original components do not appear to cluster around corresponding dimensions in all four components. In particular, only components 1 and 4 appear to cluster together significantly. It must be stressed, however, that the population of this survey is by no means representative in terms of statistical significance, and accordingly, the factor analysis should feed on more informants in the future.

The results also suggest that CE fails to become substantial as a component of its own. This might be an indication that using computers outside the FLT context has become normalized (Bax, 2003), and depending on the group of students, it might not be an issue any more. At the same time, it appears that the attitudinal/strategic dimension manifests itself as strong and coherent. It might be of interest in future research to explore the correlations of the different factors and the individual items to fully appreciate the nature of their interweaving. Again, it is crucial that we develop more substantial research that makes use of a larger sample of informants.

Our research presents a framework to implement e-tasks, or group of activities, in instructional learning environments where CALL plays no methodological role. Figure 1 presents a whole model for e-skills refinement which ranges from the identification of the curricular objectives of the course where e-skills are to be used to the very moment when instructors and researchers are presented with data that can allow them to refine their initial stands.

On a general level, the e-skill rationale presented in the background and literature review of this work can serve as the starting point for researchers to start implementing their own data-driven construct. For us, this is the beginning of a process that will take us to conduct further research in both the components of the e-skills model and the data collection instrument.

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REFERENCES

- Bax, S. (2003). CALL: Past, present and future. *System*, 31(1) 13-28.
- Beatty, K. (2002). Describing and enhancing collaboration at the computer. *Canadian Journal of Learning and Technology*, 28(2). Retrieved June 15, 2007, from <http://www.cjlt.ca/content/vol28.2/beatty.html>
- Chambers, A., & Bax, S. (2006). Making CALL work: Towards normalization. *System*, 36, 465-479.
- Chapelle, C. (2001). *Computer applications in second language acquisition: Foundations for teaching, testing and research*. Cambridge: Cambridge University Press.
- Ellis, R., Basturkmen, H., & Loewen, S. (2002). Doing focus-on-form. *System*, 30(4), 419-432.
- Felix, U. (2005). What do meta-analyses tell us about CALL effectiveness? *ReCALL*, 17(2), 269-288.
- Fernández Carballo-Calero, M.V. (2005). Does familiarization with CALL improve students' attitudes towards CALL? *Porta Linguarum*, 4, 69-75.
- Hedge, T. (2000). *Teaching and learning in the language classroom*. Oxford: Oxford University Press.

Kern, R., & Warschauer, M. (2000). Theory and practice of network-based language teaching. In R. Kern & M. Warschauer (Eds.), *Network-based language teaching: Concepts and practice* (pp. 1-19). New York: Cambridge University Press.

Levy, M. (1997). *CALL: Context and conceptualization*. Oxford: Oxford University Press.

Lim, K., & Shen, Z. (2006). Integration of computers into an EFL reading classroom. *RECALL*, 18(2), 212-229.

Mitchell, R., & Myles, F. (2004). *Second language learning theories*. Oxford: Oxford University Press.

Oxford, R. (2001). Language learning strategies. In R. Carter & D. Nunan (Eds.), *The Cambridge guide to teaching English to speakers of other languages* (pp. 166-172). Cambridge: Cambridge University Press.

Pérez-Paredes, P. et al. (2003). La redacción como proceso: Recursos electrónicos comentados para el inglés académico. *LFE: Revista de lenguas para fines específicos*, 9-10, 217-250.

Ruiz Madrid, M.N. (2005). *Aprendizaje autónomo en el aprendizaje de lenguas asistido por ordenador. Un estudio de casos comparativo de las conductas de los aprendices en el contexto de inglés como lengua extranjera*. Castellón: Universitat Jaume I.

Sahin, I., & Thompson, A. (2006). Using Rogers' theory to interpret instructional computer use by COE faculty. *JRTE*, 39(1), 81-104.

Simspon, J. (2005). Learning electronic literacy skills in an online language learning community. *Computer Assisted Language Learning*, 18(4), 327-345.

Timuçin, M. (2006). Implementing CALL in an EFL context. *ELT Journal*, 60(3), 262-271.

Vinther, J. (2005). Cognitive processes at work in CALL. *Computer Assisted Language Learning*, 18(4), 251-271.

Warschauer, M. (1999). *Electronic literacies. Language, culture, and power in online education*. NJ: Lawrence Erlbaum.

Widdowson, H.G. (2003). *Defining issues in ELT*. Oxford: Oxford University Press.

Williams, J. (2001). The effectiveness of spontaneous attention to form. *System*, 29(3), 325-340.

KEY TERMS

Computer Expertise: Refers to the mastering of the use of computers. In the context of CALL, this term is tightly connected to the abilities the students need to have in order to be able to work efficiently with a computer in the process of language learning. Among these abilities, taking the NETS project's division, we can mention those related to the management of basic software, the use of computers in the personal and professional contexts, and the capability of using computers in instruction-related contexts.

E-Skill: The group of abilities that encompass both top-down as well as bottom-up language processing in a digital learning environment and which are instrumental in the process of FL task resolution.

E-Task: A task designed to be performed on a computer. These types of tasks appear in special formats, such as hypertext formats. The process of e-task solving is closely related to the use of electronic resources, as students can turn to this type of resource to overcome possible difficulties they might find during the completion of the task.

Factor Analysis: Data-reduction technique used to interpret underlying dimensions in a construct.

Normalization: Based on Bax (2003), a future vision of future development of CALL in FLT.

Skill: A complex term whose scope spans different domains. Within the field of FLT, skill refers to the four basic abilities students must develop to achieve a good command of the language. From a more general perspective, skill refers to any ability acquired by training or practice, allowing individuals to perform well in multifarious types of tasks. In this context, a skill is an ability that is acquired through practice and by using declarative knowledge.

Strategy: A plan designed to achieve a goal. Thus, in the context of second language learning, we can take the term *strategy* as a plan the students devise to solve the tasks and challenges they are presented in the process of language learning.

ENDNOTES

- ¹ <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/06/1635>
- ² Task-Force on ICT Sector Competitiveness and ICT Uptake. Working Group 5 Skills and Employability (p. 5).
- ³ Ibid.
- ⁴ Ibid.
- ⁵ <http://eskills.cedefop.europa.eu/eskills2004/index.htm>
- ⁶ Definitions from *The Longman Dictionary of English Language and Culture*. Second edition first published in 1998; sixth impression, 2003.

- ⁷ *The Oxford English Dictionary*. Oxford University Press, Ely House, London W1. First edition 1933; reprinted 1963, 1970.
- ⁸ *Collins English Dictionary*. Fifth edition first published in 2000; HarperCollins Publishers 1979, 1986, 1991, 1994, 1998, 2000. <http://dictionary.reverso.net/english-definitions/skill>
- ⁹ *Webster's Online Dictionary*, <http://www.websters-online-dictionary.org/>
- ¹⁰ Among the repertoire of strategies, we can find planning, generating ideas, organizing information, selecting appropriate language, making a draft, reviewing it, and editing (Hedge, 2000, p. 302).
- ¹¹ Byram, M. (2000). *Routledge Encyclopaedia of Language Teaching and Learning*. London: Routledge.
- ¹² *The Longman Dictionary of English Language and Culture*. Second edition first published in 1998; sixth impression, 2003.
- ¹³ "What is the NETS Project?" <http://cnets.iste.org/index.shtml>
- ¹⁴ Standards for Basic Endorsement in Educational Computing and Technology Leadership, http://cnets.iste.org/ncate/old/n_literacy-old.html
- ¹⁵ See 14
- ¹⁶ See 14
- ¹⁷ Electronic document
- ¹⁸ European E-Skills Forum, E-Skills for Europe: Towards 2010 and Beyond, Synthesis Report (2004, p. 5)
- ¹⁹ http://www.alte.org/can_do/alte_cando.pdf

APPENDIX A: POST-TASK E-SKILL MODEL QUESTIONNAIRE

Name :

BLOCK 1. GENERAL QUESTIONS

1.1 Rate the following statements according to this scale:

1: never 2: from time to time 3: almost every day 4: every day 5: several times a day

	1	2	3	4	5
1. I use a computer at home.					
2. I can connect to the Internet at home.					
3. I use the university computer labs.					
4. I use computers for leisure purposes.					
5. I use computers for academic purposes.					
6. I check my e-mail...					
7. I use my e-mail to communicate with my friends/family.					
8. I use my e-mail to communicate with my teachers.					
9. I use Microsoft Messenger or similar instant message software.					
10. I use videoconference (Messenger, VideoCam, Skype, etc.).					

1.2 Rate the following statements according to this scale:

1: strongly disagree 2: disagree 3: neutral 4: agree 5: strongly agree

	1	2	3	4	5
11. I can perform basic operations with a computer (run programs, play CD-ROMS or DVDs, copy CDs, scan documents/pictures, attach files to emails...).					
12. I can use a word processor satisfactorily.					
13. I can use search services like Google satisfactorily (i.e., I know tips to improve searches, etc.).					
14. I can typewrite, this is no problem.					

BLOCK 2. YOUR EXPERIENCE WITH THE TASK

2.1 Rate the following statements according to this scale:

1: strongly disagree 2: disagree 3: neutral 4: agree 5: strongly agree

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	1	2	3	4	5
15. Operating the software was easy.					
16. The instructions were clear.					
17. The level of difficulty of the activities was adequate to my English language learning profile.					
18. I had enough time to complete the activities.					
19. The performance of the computer was satisfactory.					
20. The design of the task was attractive.					
21. Speaking while doing the activities made me feel uncomfortable.					
22. I feel <i>lost</i> when working with Internet resources.					
23. Electronic resources save time in comparison with other resources.					
24. I would have liked to have a list of suggested Internet resources.					
25. I prefer working with a textbook and with traditional resources.					
26. Working with a computer makes the activities more attractive than working with the textbook.					
27. The language lab is a valuable option to complement traditional lectures in the classroom.					
28. I would like to do more English language learning activities with computers.					
29. This experience has opened up new ways into learning English.					

2.2 SUGGESTIONS
