HOW DO STUDENTS READ ON THE INTERNET IN THE NEW TECHNOLOGICAL ERA?

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Abstract

The principal focus of this investigation is to discuss how EFL students read on the Internet after completing a Cybertask. Our main concern is to find out how students read on the Internet in the new technological era. Nowadays we are going through a great technological revolution that makes us being concerned about the English Language as a Foreign Language education. For this reason, we deem necessary to apply our knowledge during the reading process (Schmar-Dobler, 2003) and promote the reading capacity of texts (Luzón & Ruiz-Madrid, 2008; Luzón, Ruiz-Madrid & Villanueva, 2010; Girón-García & Gaspar, 2012). Furthermore, this paper focuses on two features: (a) how students handle the great amount of information they find on the Web; and (b) how they select the most appropriate information according to their task objectives. In order to get relevant results, a group of university students of the English Studies degree at 'Universitat Jaume I' (Spain) worked on an English task-based activity (i.e. 'Cybertask') during their class regular time. They also took into account a number of Websites provided by the teacher and following they completed a Self-Assessment Questionnaire in order to evaluate both their task process and task result. Finally, the main aim is to analyse how students read ('Reading Modes') in a digital context when they face task-based activities (Girón-García, 2013). However, our study goes beyond the classification of Internet users ('Knowledge Seekers', 'Feature Explorers', and 'Apathetic Hypertext Users') (Anderson-Inman & Hoerney, 1993; Bowdish et al., 1994; Lawless & Kulikowich, 1996).

Keywords: EFL, cybertask, reading modes, digital context.

1. Introduction

New technologies have aroused the interest of a number of scholars over the last decades since the appearance of computers with networked information (Internet). Accordingly, new forms of literacy (Schmar-Dobler, 2003) have been created by the union of reading and technology on the Web and the Internet.

According to Graham and Hebert's (2010) words in a report made from Carnegie Corporation of New York:

> Technological innovation, globalization, and changes in the workplace have increased the need for young people to obtain some form of higher education, whether it is in a two- or four-year college or involves technical or career coursework (Graham & Herbert, 2010: 7).

Furthermore, the acquisition of high-levels of proficiency in literacy skills is a universal requirement for students, professionals, and educators in the field.

For this reason, new literacies demand a special effort on the part of students in order for them to learn (a) how to use technological resources, (b) be able to surf the Web, (c) evaluate information, and (d) create new knowledge from already existing information (Labbo et al., 2003). Along this line, the role of new literacy (Kress, 2003) in this research is in straightforward relation to our subjects' navigation. During the

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navigation process, students face Web pages provided with texts and images. Therefore, the aim under investigation is observing how students read on the Internet through the selection of some specific resources (whether these are provided with long texts or accompanied by images) to gather relevant information to complete a Cybertask (online task).

This paper is organized in six sections. In section 2, we aim at commenting how different navigation types ('Reading Modes') have emerged depending on students' screens' management (i.e. time control). In section 3, we will review online activities ('Cybertaks') as a means of instruction in the EFL classroom. Section 4 describes the way this study has been carried out including a description of the number of participants, instruments and procedures that have been used in it. Section 5 reports on the results obtained in the study as well as an in-depth discussion about such results followed by the general conclusions included in section 6 and some bibliographical references.

2. Reading comprehension on the Internet: The appearance of 'Reading Modes'

Working with electronic texts in our daily lives (at home, at the university, at a newspaper company…) implies a constant use of the Internet. At the same time, the user is provided with new ways of searching valuable information: although this task of searching information on the Web can be confusing and exasperating sometimes. The reason for these feelings lies in the fact that most people are used to extract information from traditional printed texts (Coiro, 2003). Therefore, when observing students interacting with electronic texts (from an Internet search), we might deduce that they *"perceive Web text reading as different from print text reading"* (Sutherland-Smith, 2002: 664).

We highlight the fact that both printed and electronic texts are not conceived as two opposed disciplines, rather they are complementary. For this reason, let us provide some differences between printed texts and electronic media (digital texts) (Kern, 2000: 224-225):

• Printed texts are static. They are organized in a continuous linear sequence of units such as paragraphs, sections, and chapters, usually presented in discrete, rectangular blocks of writing, surrounded by white margins, on pages. We cannot change the physical order of pages, but we can go from one location to another.

• On the other hand, electronic texts are dynamic. Writers can easily move chunks of text from one location to another. They are also virtual and they can only be viewed one 'window' at a time. It is sometimes unclear where the exact boundaries of a given text lie, because electronic texts are interconnected with other texts in broad networks. Thus, the interlinking of texts and text fragments also makes possible new forms of reading on the Internet in the new technological era.

However, in our society electronic texts adopt new characteristics. Thus, Web-based texts are non-linear, interactive, and inclusive of multiple media form (Girón-García, 2013: 145-146):

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• In non-linear hypertexts, readers navigate creating their own paths through the information in a way that may be different from the intended path of the author.

• In interactive texts, readers navigate creating various paths and constructing their personal adaptation of the information. Goldstone (2001) points out that some authors have begun to adopt a facilitator role, inviting readers to construct their own story actively by *"co building the framework, supplying missing features of the story structure, and pulling together discrete narrative strands"* (p. 366). Thus, texts on the Internet become interactive environments as opposed to static words on a page.

• In multiple-media texts, electronic texts can integrate a range of symbols and media formats including icons, animated symbols, photographs, cartoons, advertisements, audio and video clips, virtual reality environments, and new forms of information with non-traditional combinations of font size and colour (Brunner & Tally, 1999; Reinking & ChanLin, 1994). Images and sounds are combined with written texts to create new ways of conveying meaning, explaining procedures, and communicating interactively (Downes & Fatouros, 1995).

With the emergence and advance of multimedia technologies, some researchers have begun to investigate how hypertext could be used to enhance reading experiences and comprehension. Thus, according to Horney and Anderson-Inman (1993), we may find three types of hypertext readers: '*Book Lovers*', '*Studiers*', and '*Resource Junkies*'.

• A 'Book Lover' is a person who typically reads everything in a linear form, and uses available resources with a critical thought.

• A 'Studier' is an individual who navigates through 44 pages in a linear form, and uses backward navigation for reviewing and checking.

• 'Resource Junkies' are students who feel excited by the resources provided. They spend most of their time looking for and using resources. Their navigation patterns and strategies are the most varied and complex.

Hill and Hannifin (1997) noted individual differences in searching strategies, whereas Korthauer and Koubek (1994) observed differences in the time users spent moving through selected pages. Anderson-Inman and Hoerney (1993), Bowdish et al. (1994), and Lawless and Kulikowich (1996) suggest three general profiles that can be identified from users of hypertext depending on their concerns about the content or the context of the Web:

• 'Knowledge Seekers' look for knowledge related to the content of the hypertext.

• 'Feature Explorers' spend more time trying to understand how the hypertext works rather than trying to gather information from the written text. These users are worried about the context of the Web.

• 'Apathetic Hypertext Users' are characterised by displaying no logical browsing strategy (how users move through the hypertext), and appear to be lost in the complexity of the document. Thus, they do not identify themselves with the content.

However, our study goes beyond this classification of Internet users ('Knowledge Seekers', 'Feature Explorers', and 'Apathetic Hypertext Users') (Anderson-Inman &

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Hoerney, 1993; Bowdish et al., 1994; Lawless & Kulikowich, 1996). For this reason we propose the following classification of 'Reading Modes' (i.e. types of navigation): 'Navigating', 'Browsing', and 'Reading' (Girón-García, 2013: 312-313).

We designate as *'Navigating'* method the rate of up to five seconds employed visiting the same site; *'Browsing'* method is the rate where the student spends between five and fifty seconds in the same page; and we understand by *'Reading'* method, the method followed by students who employ more than fifty seconds in the same page.

In order to determine these time spans for each navigation type, we bore in mind the degree of complexity of the web pages proposed by the researcher. That is, if the site contains a low degree of complexity, we would need to apply less time to the types of navigation, since the time applied to the 'browsing' method (up to fifty seconds) in a very complex page could correspond to a 'reading' method in a very simple web page.

After this classification of 'Reading Modes', we deem necessary to mention that introducing electronic texts for reading comprehension and instruction, in particular, exemplifies the attempts to expose L2/FL learners to authentic material (Coiro, 2003). Furthermore, he also believes that *"the Internet provides opportunities for interacting with new text formats […]; new reader elements […]; and new activities […]"* (2003: 459). At this respect, carrying out online tasks ('Cybertasks') can often involve student participation, where both teachers and students together learn media literacy skills and competencies. Moreover, educators should bear in mind that we are in the middle of one of the most remarkable technological revolutions, and we must learn to adapt new computer technologies and resources to present education. Accordingly, in this project we take into account the design of language learning Cybertasks, which promote the ability to read online texts and construct new information in the EFL classroom.

3. 'Cybertask' as an instrument for content-based instruction in the EFL classroom

3.1. Task-based learning activities for content-based instruction

Our research on reading on the Internet is supported by two distinct broad aspects: 'Reading Modes' and 'Cybertasks'. At this respect, we have already explained the existing classifications provided for each type of navigation (i.e. 'Reading Modes'). However, our concern in this section is centered on 'Cybertasks' as instruments for the classroom instruction. But before explaining 'Cybertasks' in further detail let us first provide a general definition of the word 'Task'.

The concept of 'Task' is understood by many researchers in the field as a new way of teaching a foreign language (Candlin, 1990; Nunan, 1989; Zanón, 1990; Estaire & Zanón, 1992). Thus, a 'Task' is conceived as a new methodological work in the EFL classroom, whose main objective is that students use English as a foreign language to communicate naturally in the classroom. Along these lines, in our study, a group of university students will work on an English task-based activity. In this activity, students will search information referred to the writing process; the main aim of this is to get

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students to surf the Internet to get a specific outcome, that is, to analyze how students read in a digital context (see section 2).

Thus, in our context, a task refers to a type of learning activity designed to engage students in searching information on the writing process, for the purpose of the present study, in order to obtain specific objectives. Then, the main aim of our task is related to promote the reading capacity of texts that may encourage students learning to learn English, in other words, that students acquire a greater autonomy in (a) selection; (b) evaluation, and (c) use of authentic and supporting materials to study English.

In task-based activities, English as the target language and content on a particular topic of interest are integrated. Thus, some researchers in the field (Brinton, Snow, & Wesche, 1989) argue that content-based instruction engage students to interpret authentic texts as in a real reading situation:

> Employs authentic reading materials which require students not only to understand information but to interpret and evaluate it as well… [and] requires students to synthesize facts and ideas from multiple sources as preparation for writing (p. 2).

Hence, content-based instruction offers a number of benefits (in Girón-García, 2013: 168-169):

• Students' interaction with authentic materials relevant to their goals enhances their motivation to learn better (Brinton, Snow, & Wesche, 1989; Kasper, 2000; Warschauer, 1996).

• Internet use integrates a great amount of reading and writing skills, as well as *"opportunities to practise them in meaningful contexts"* (Luzón, 2002: 21).

• It promotes problem-solving and critical thinking (Warschauer, 1999).

• The use of the Internet helps students become autonomous, so as they take control of their own learning (Luzón, 2003: 125). Furthermore, students choose the contents they want to learn, as well as how much time they will devote to the tasks proposed.

These resources allow teachers to design online task-based activities using authentic materials. Along this line, in Kimball's (1997) words: *"Internet-generated materials can be flexibly arrayed to engage students with topics and cognitive tasks relevant to students' professional futures"*.

We will devote the next subsection to discuss in depth on 'Cybertasks' as means of content-based instruction in the EFL classroom.

3.2. 'Cybertask' as a means of instruction in the EFL classroom

The training in media literacy becomes central, since media are the main focus of our cultural background, and educators face the challenge of teaching media literacy through online materials in order to contribute to advancing multicultural education (Girón-García & Ruiz-Madrid, forthcoming).

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We believe that working with 'Cybertasks' might involve students' active participation in the classroom and outside the educational setting. For this reason, we take into account the design of a Cybertask which helps in the students' development of an autonomizing reading competence (Luzón & Ruiz-Madrid, 2008).

For a long time already, the presence of the Internet as a teaching tool for language learning has become a fact, and thus it might be considered as a way of engaging students with real-life materials (Brinton, Snow & Wesche, 1989). In addition, it is the teachers' responsibility to train and guide their students to engage them in authentic communication when they face a particular task in the classroom.

In our study, a 'Cybertask' is designed to engage students in searching information through the Internet in order to collect, use and transform information concerning 'The Writing Process'. In fact, this kind of task-based activity may help students to: (1) Develop their metacognitive skills in order to learn how to guide their learning on their own (Luzón, 2003), and (2) use the Internet as a tool for their personal learning plan.

This Cybertask consists of a WebQuest (Dodge, 1997; 2001) based model activity to be realized and completed in a two-hour session, and it is designed with the purpose of learning to write through subtasks. Thus, (a) this Cybertask allows in-depth analysis: (1) students' representations on 'writing', (2) their representations on writing and the importance of learning to learn; and (b) their ability to think about their own learning using the appropriate metalanguage, that is, metacognitive awareness.

The main objectives of Cybertasks are to promote new literacy skills and make the most out of such an activity for the development of language learning autonomy in ICT contexts. Apart from these, this design includes other aims:

• Teaching 'new literacies' in media contexts (ICTs);

• Learning to write;

• Metacognition (i.e. evaluating the knowledge acquired by doing this Cybertask);

On the one hand, the main learning aims of this Cybertask (Girón-García, 2013: 212) are the following:

• Carry out an Internet search in order to gather information concerning the writing process;

• Acquire new knowledge using some Internet links about writing provided by the teacher;

• Focus on meaning rather than on form or content, writing thus meaningful answers according to the students' objectives and depending on the activities proposed in the Cybertask; and

• Metalanguage: Think about our own language learning in order to learn how to guide it on our own.

On the other hand, the student's aim of this Cybertask (Girón-García, 2013: 212-213) is to complete a final task (Activity 6), where students have to organize information in a graphic organizer in order to write an essay.

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The task consists in reading (reading comprehension), but in fact, it is about 'writing'. Therefore, our question here is: Why do we think 'writing' is relevant?

(1) It is important because our present technological world demands immediate written communication. We find writing everywhere: Whatsapp, Facebook, Twitter, SMS, e-mail… The problem is that we need to give answers immediately and most of the times we do not pay attention to our writing.

(2) Writing is related to cognitive, metalinguistic, and learning styles' capacities.

(3) It is interesting to see how students design an outline (graphic organiser) and later they put that graphic into practice with a written essay (see Activity 6: Final Task, in the Cybertask).

Furthermore, 'Writing' has perhaps been our biggest frustration as students and as teachers, often leading us to unwanted, guilt-ridden failure. Thus, the student should consider the following ideas:

• How they could improve their writing

• Learn how to write in an appropriate, academic way

• Become able to write different types of genres: essays, business letters, research reports... in English.

Finally, after the completion of this Cybertask, students are able to think about their own knowledge. Furthermore, they are asked to complete a Self-Assessment Questionnaire where they can make comments on the Cybertask's process and result.

4. The study

4.1. Context and participants

The quasi-experimental design used for the purpose of the present study is a qualitative case study. This section accounts for the epistemological and methodological reasons that led to the choice of six case studies as the research method for the present work.

The case studies in this dissertation are based upon the examination and description of a pedagogical activity with 23 subjects (al236946, al229578…); although due to research purposes only 6 were taken into account. In the design, each student was assigned a computer in order to carry out the task.

The study was carried out in three stages: (1) Elaboration and design of a Cybertask; (2) implementation in a language programme; and (3) realization of the Cybertask by the students.

The "Cybertask" 'The Writing Process' deals with different strategies used when writing a document. It took 2 hours for the students to realize and consists of six activities.

Finally, at the end of the task, students were asked to complete a 'Self-Assessment Questionnaire' in twenty minutes. That questionnaire included a wide range of questions related to the process of the task and its results.

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Regarding the participants that took part in this study, a number of 23 students were selected from the English Studies degree at 'Universitat Jaume I' (Spain). Among these twenty-three students, only 6 were selected for the purpose of case studies.

4.2. Procedure and data collection

Although the students gave their permission to use their data, an individual identification code was provided in order to safeguard their privacy. Their participation in this study was presented as one of the complementary activities to be given partial credit in addition to the final mark at the end of the semester.

In order for results to be available, students had to submit online the questionnaires they were asked to do, as well as the Cybertask. Afterwards, thanks to a computing programme created by the [2]GIAPEL Group, all the questionnaires were sent so as to be able to observe what exactly the students had answered.

4.3. Instruments

The main instrument for our study has been the 'Cybertask: The Writing Process'. Nevertheless, we have used another instrument endorsed for data collection: 'Self-Assessment Questionnaire' (Girón-García, 2013). All the participants who took part in this study were asked to complete a "Self-Assessment Questionnaire" to evaluate their own work (i.e. the Cybertask). This survey included a number of questions related to (1) the task process and (2) the task result (i.e. the results obtained from the navigation process). With this type of questionnaire, students feel free to click on those options related to the process of the Cybertask completion (e.g. criteria used to select information, information management, interesting http://addresses, previous knowledge on the topic, etc.), and to the result (e.g. their degree of satisfaction regarding Internet use in solving the proposed task, to obtain new information, to build new knowledge, etc.). As the students finish completing this questionnaire, they send it via online and a database management system keeps all the data.

5. Results and discussion

In this section, we present the different results obtained and which derive from our experiment with the Cybertask. These results reveal (a) the students' navigation type, and (b) their learning expectations, self-assessment and teacher's assessment. All these results will help us to answer the following research question *(RQ): How do students read on the Internet in the new technological era?*

5.1. Navigation results

Regarding the time spans stipulated in the navigation that students carried out ('Navigating', 'Browsing', and 'Reading') (see section 2), it is important to emphasize that to assign a type of reading mode to each one of the subjects we have not taken into

[2] "Grupo de Investigación y Aplicaciones Pedagógicas en Lenguas"

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account neither the previous navigation to the initial Web page or the navigation after the concluding Web page:

-Initial web page:

http://www.giapel.uji.es/cibertareas/TheWritingProcess/index.htm.

-Concluding web page:

http://www.giapel.uji.es/cibertareas/TheWritingProcess/conclusion.thm.

We do have taken into account all the Web pages from their initial navigation to their ending (concluding Web page), as well as the Web pages offered in the Cybertask and the Web pages of their own choice.

According to Table 1 below (Navigation Results), out of 23 students who completed the Cybertask 20 students presented a 'Navigating' mode, 1 student developed a 'Browsing' mode, and 2 students the 'Reading' mode:

STUDENTS	READING MODES	STUDENTS	READING MODES
al236946	Navigating	al227842	Navigating
al229578	Navigating	al185922	Navigating
al227819	Navigating	al121277	Navigating
al227844	Navigating	al118191	Navigating
al227888	Navigating	al121324	Navigating
al228860	Navigating	al118185	Navigating
al205270	Browsing	al065111	Navigating
al227924	Navigating	al118216	Navigating
al074451	Reading	al099409	Navigating
al228747	Navigating	al121323	Reading
al227821	Navigating	al121300	Navigating
al106682	Navigating	al121282	Navigating

(Table 1: Navigation Results)

5.2. Students' learning expectations, self-assessment and teacher's assessment

This subsection shows the students' perceived learning expectations and self-assessment from the 23 students in our experiment, and the global assessment. Among these 23 students, only 6 students stated that they had not learnt anything new in relation to the "writing process", while 17 students confirmed that they had acquired new knowledge after completing the Cybertask.

Table 2 shows the number of students who have (or have not) attained the desired learning expectations and the global assessment.

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Combining 'Teacher's Assessment' and the application of information management criteria, we established the following grading scale as a global assessment scale: (1) Breadth (P-Poor), (2) Depth (G-Good), and (3) Re-use (VG-Very Good); defining them as follows (Girón-García, 2013: 246-247):

(1) Breadth: Students copy exact pieces of information, just as they appear on the Web.

(2) Depth: Students are able to use specific information from the resources proposed on the Web.

(3) Re-use: Students are able to use specific information from the resources on the Web and re-use that information, explaining the contents in their own words.

Students' Perceived Learning Expectations		Global Assessment		
Yes	No	Breadth (P)	Depth (G)	Re-use (VG)
17	6	4	12	7

(Table 2: Learners' Perceived Learning Expectations and Global Assessment)

As for the "students' perceived learning expectations and self-assessment", the following is claimed:

First, seventeen students confirmed that they had acquired some new knowledge about the writing process during the task, because in the Self-Assessment Questionnaire they stated that they knew nothing or they only had some notions of 'writing' in English. On the contrary, six students claimed that they had not learnt anything new: they stated that they knew the topic quite well and that the Cybertask did not provide them with any information they had not known before. This is mainly due to the fact that these six students had already attended a course on 'writing' the previous academic year.

Second, only four students did not succeed in carrying out the task (Poor), out of seventeen students who claimed that they had learnt new information on 'writing'. These four students just copied some information they found on the web in order to answer the questions proposed (without producing any personal elaboration of that information). On the other hand, nineteen students succeeded (Very Good / Good), as they were able to use specific information from the resources proposed, and re-use that information (explaining the contents in their own words). This can be clearly observed in their answers to the Cybertask questions. For example, to the question: *Why is writing an essay so frustrating?* (Activity 2.1). These students answered the following:

Student al074451: "*Learning how to write an essay can be a maddening, exasperating process, but it doesn't have to be. If you know the steps and understand what to do, writing can be easy and even fun*".

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When this student refers to 'steps', probably she is referring to the different[3]writing phases, although we could refer to the types of learning and learning plans as well.

Student al118216: "*Writing an essay can be frustrating if you do not know the steps to write it*".

Both students write negative comments on 'writing': Students **al074451** and **al118216** state that writing can be *"a maddening, exasperating process"* (**al074451**), and *"writing…can be frustrating"* (**al118216**). Furthermore, it is surprising the fact that student **al074451** not only shows a negative attitude towards 'writing', but also adds positive comments such as: *"writing can be easy and even fun"*.

From the six students who claimed that they did not learn anything new in the 'writing' activity, only three students succeeded (Very Good / Good) in carrying out the Cybertask. They tried to re-use the information gathered on the net, expressing it in their own words. The other three students were not successful (Poor), since they just copied the information as it appears on the web. For example, to the activity 3.1.: "*Try to define and explain the importance of the writing process"*. Students **al227819** and **al118191** answered the following:

Student al227819: "*Writing process is both a key concept in the teaching of writing and an important research concept in the field of composition studies*".

Student al118191: *"The writing process is very important, because we need to write in order to communicate, and we need to write correctly. Writing is everywhere: in newspapers, in internet, books and so on and we need to follow a writing process to write coherently in order to communicate effectively"*.

Student **al227819** adopts a point of view of an advanced learner with thoughtful and autonomous traits since the task objective is presented not only from the teaching-learning point of view, but also from the investigation perspective.

The comment that student **al118191** points out means an open point of view when it comes to establishing relationships between coherence and communicative efficacy according to different contexts and resources.

Considering all these data, for seventeen out of twenty-three students, the task completion outcome confirms that there are perceived learning outcomes. In the case of the remaining four subjects, there appears to be a mismatch between perceived and actual outcomes.

To know if our students held the Cybertask successfully or not, we had in mind some criteria for each of the proposed activities. It is important to point out that all the Cybertasks were corrected by a teacher from the 'English Studies Department' in our university (Universitat Jaume I). Regarding these criteria, Table 3 (Activity 1 Results) below illustrates the grade that our six case studies obtained in "Activity 1". We need to remember that the grade that we attributed to this activity was 5 points:

[3] Writing phases: in this case we refer to the various steps that appear on one of the pages proposed in the Cybertask (http://www.kimskorner4teachertalk.com/writing/writingprocess/menu.html)

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Activity 1: *"In view of the brief introduction given above, what do you expect to learn from today's class? Write a few lines giving your own point of view".*	
STUDENTS	**GRADE**
al225270	**5/5**
al227924	**5/5**
al118216	**5/5**
al121323	**5/5**
al074451	**4/5**
al118191	**4/5**

(Table 3: Activity 1 Results)

5.3. Discussion

In the light of all the results shown in relation to the Cybertask, further discussion is presented taking the following research question as starting point: *(RQ) How do students read on the Internet in the new technological era?* To answer this question, we will take into account the three different Reading Modes ('Navigating', 'Browsing', and 'Reading').

(1) '*Navigating'* mode of navigation: Students with this type of navigation have been shown to have the ability to create their own navigation path and choose the Web pages offered in the order they preferred when they had to track for online information. This behaviour, in which students choose a different order of the Web pages than the one proposed as they appeared in the Cybertask presentation, has been displayed in their non-linear reading of these Web pages. According to Anderson-Inman & Horney (1993), Bowdish et al. (1994), and Lawless & Kulikowich (1996), students with a 'Navigating' mode are called 'Apathetic hypertext users', which is justified because it is assumed that students display "illogical browsing strategies" through the hypertext. Their consideration of illogical strategies are based on an evaluation of students' navigation paths in terms of the strict order of navigation proposed by the teaching model, which students are supposed to follow in a linear way. It seems difficult to talk about illogical navigation if the students have carried out navigation paths that are efficient to solve the Cybertask, even though they have carried out and created their own paths. On the other hand, the denomination "apathetic" is rather vague and gives too little information in relation to our study expectations.

Nevertheless, our study goes beyond the classification made by Anderson-Inman & Horney (1993), Bowdish et al. (1994), and Lawless & Kulikowich (1996). It is true that the 'Navigating' reading mode entails a superficial navigation on the Web. 'Navigating' students tend to carry out a general overview of the information because they want to be quick in finding out about the contents of a Web page. Once students have ordered the ideas in their minds, they select the information they are more interested in, mainly by

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means of key words. Therefore, in our case, the characterization of this group of students as 'Apathetic hypertext users' seems rather inconsistent.

(2) *'Browsing'* mode of navigation: Students with this navigation mode "pecked at" information doing a quick sweep of the information that they thought worth considering in order to achieve their Cybertask objective. Furthermore, following Anderson-Inman & Horney et al. (1993), we also called these students 'Knowledge seekers' because they sought knowledge related to the contents of the hypertext. These students showed an initial predisposition to gather and consult several Web pages quickly in order to answer the activities in the Cybertask.

'Browsing' students examine the relevance of a number of Web pages or its contents quickly, which may or may not lead to their interests in relation to the information they need for the activities they have to answer. Therefore, this type of student carries out an orientation strategy that may or may not fulfil their expectations.

(3) *'Reading'* mode of navigation: 'Reading' students are willing to cover all the information found on the page very carefully, paying attention to written texts, images, and visual elements that appeared in the Web pages offered. They felt that these elements could help them in quickly finding contents of the page that were most relevant to complete the Cybertask. When these students started surfing the net, they immediately got an overview of the Web pages offered in the Cybertask by means of a quick first look, and then they continued their navigation again respecting the order of Web pages as they appeared in the Cybertask presentation for each of the activities.

In view of our observations, according to our study, the classification made by Anderson-Inman & Horney (1993), Bowdish et al. (1994), and Lawless & Kulikowich (1996) does not correspond with alternative traits but with complementary strategies when the goal is to perform a particular task. 'Reading' students are not only 'Knowledge seekers', but also 'Feature explorers', since they (a) looked for information related to the content of the hypertext ('Knowledge seekers'), and (b) took graphic and design elements into account in a Web page in addition to written language ('Feature explorers').

Finally, we should not forget that students' interaction with online texts (interactive texts and multiple-media texts) was different from interaction with texts in print formats, because students' perception of reading information on the Web is different from reading printed texts. Therefore, according to our study, students created their own navigation path deriving into non-linear hypertext. Thus, students have been able to build their personal hypertext understanding it as the result of their reading process and regarding their navigation options. Likewise, students' non-linear navigation allows them to associate their own knowledge with the new information (Villanueva, Luzón, Ruiz, 2008). Therefore, with regards to the meaning construction process, hypertextual reading opens up a new reading dimension in which reader and writer do not necessarily take up opposing roles.

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Finally, establishing a relationship between the times employed and the task results, we could deduce that only 'Reading' students (2) took into account strategies that imply:

- Awareness of Web pages' features,
- Anxiety control,
- Ability to project previous knowledge in texts, and
- Awareness of task objectives.

6. General conclusions

The aim of the present work focuses on discussing how EFL students read on the Internet as they perform a Cybertask. Furthermore, this study focuses on two features: (a) How students handle the great amount of information they find on the Web; and (b) how they select the most appropriate information according to their task objectives. Finally, the main aim is to analyse how students read in a digital environment when they face Cybertasks that complement teaching instructions (Girón-García, 2013).

Along this line, we have observed that each one of the Reading Modes influences the realization of a given task and the perception of online texts, as an interlinked whole or as an addition of segments. As we have mentioned in previous sections, the 'Reading' mode of navigation would be related to an interlinked whole, and the 'Browsing' and 'Navigating' navigation modes would be in association with an addition of segments. In this line, previous classifications of Internet reading modes did not clarify students' behaviour in many aspects.

With the aim of improving students' learning processes through Cybertasks, we need to bear in mind that it could be useful to design future exercises focusing on specific skills, such as:

(1) Exercises that focus the task on the selection of information, in order to answer a learning need: gathering different contents on the Web with the purpose of answering the questions proposed in the Cybertask.

(2) Exercises that involve interaction on the Web: blogs, forums, e-mail. It would be interesting to give some training to students for selecting blogs and forums, in order to stimulate their personal expression, their interaction capacity and their practise in collaborative learning.

Concerning the conclusions drawn and suggestions made we propose the following ideas for further research:

First, it is necessary then to investigate on (a) technological skills that transcend basic technical proficiency and (b) skills linked to autonomy development.

Second, planning, monitoring, evaluating, reflecting, decision-making, accessing and organising information, as well as the amount of information in hypertext, can increase anxiety. In our experimental design, students had to control the amount of information they were exposed to, so that they could carry out the task in due time. Thus,

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we think that it is necessary to carry out further investigations related to anxiety management.

Finally, we deem necessary to further explore new designs of Cybertasks that combine both the training in the new literacies and autonomy.

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