Teaching ESP through the Internet. Case Study

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Abstract

This paper is studying the impact of the Internet on the ESP classroom, providing an introduction to the basic theoretical aspects of this area, its development, benefits and drawbacks. The paper is also concerned with the most common applications of Internet-based activities, such as communication, information retrieval, and information publishing. Internet access has brought about new virtual learning environments and consequently, new learning experiences for the students: they can attend lessons or sessions when they want, they can log on from different locations, and they are offered new opportunities for communication.

Key words: English for Special Purposes (ESP), English teaching/learning, media, Internet, communication skills

J.E.L. Classification: K00

1. Introduction

According to Schmidt and Cohen (2013: 3), "The Internet has transformed into an omnipresent multifaceted outlet for human communication. It is in a constant state of mutation, growing larger and more complex with each passing second. [...] Through the power of technology, age-old obstacles to human interaction, like geography, language and limited information, are removed, and a new wave of human creativity and potential is rising". Mass adoption of the Internet is driving social, cultural, economic and political transformations in the society, the effects being fully global. At the same time, it makes it possible for almost everybody to own, develop, and disseminate real-time content without having to rely on intermediates.

In his work entitled *The Network Society. Social Aspects of New Media*, the scholar Jan A.G.M. van Dijk (2006: 6-13) presents and also analyzes the main features of the new media. Thus, according to him, the first important feature refers to "the integration of telecommunications, data communications and mass communications in a single medium. It is the process of convergence. For this reason, new media are often called multimedia". The second main feature is represented by "the rise of interactive media". Last, but not least, the above-mentioned author describes the third characteristic in the following way: "Digital code is a technical media characteristic only defining the form of new media operations. However, it has great substantial consequences for communication can be transformed and transmitted in the form of strings of ones and zeros called bytes, with every single 1 or 0 being a bit. This artificial code replaces the natural codes of the analogue creation and transmission of items of information and communication (e.g. by beams of light and vibrations of sound)".

People communicate in cyberspace for different reasons. Some want to talk with people with similar interests, some want to keep in touch with friends or the family, some want to hang out with people without being judged immediately on their looks, some are interested in finding a friend, and some simply want to surf around because they have nothing better to do. (Stewart et al., 2005: 363)

All communication involves constructing identities or selves. In addition, people continually negotiate identities, choosing one identity over another. This is a process that happens collaboratively, outcomes are not predetermined, and identity construction is made up of reactions and responses. Selves are constructed online and offline in similar ways, but cyberspace has some features that lead to calling it an 'identity workshop'. One advantage of using cyberspace as an identity workshop is that people can put themselves into the shoes of others. The disadvantages are that people can deceive each other and interact unethically. (Stewart et al., 2005: 367)

2. The Internet as a Communication Tool

Both teachers and students can find almost anything they want on the Internet. However, according to Harmer (2007: 191), its size and range make it potentially awkward for users, who often find it difficult to locate the exact information they are looking for. This is partly because searching is a skill in itself which students need to acquire. The Internet research is a stage towards some other goals. There are many websites for students to practice language, for instance, communicating with some other people (Baron, 2008). Project work is also popular in teaching English as a foreign language, especially with students who have access to a wide range of new resources.

The Internet is more than just a pool of information. It is also a communication tool that gives the teacher and the students the capability to interact with other people around the world. It is a tool for information publishing, where one can make their own materials available to others. These power and versatility make the Internet a truly revolutionary tool for students and teachers (see Ito et al., 2009; Clifford, 2012; Schafer, 2011).

According to Newby et al., (2002: 190), electronic mail (e-mail) is the most widely used service on the Internet. Its main role is to support human interaction and to simplify (and speed) the exchange of data and ideas. For example, teachers and students can write to each other or communicate faster and easier via the Internet (using tools such as e-mail, chat or instant messaging) with other students, teachers, and experts in a particular field around the world. Communication by e-mail is analogous to writing a letter to one person. Another communication tool is the *newsgroup*, i.e. a discussion group that allows students and teachers with common interests to communicate with each other. The sites are dedicated to a single subject and allow them to read comments and questions, and to post comments, questions and answers.

Instant messaging allows two users on the Internet to synchronously communicate by typing messages back and forth to one another in real time. It resembles a telephone conversation, except that in most cases the conversation is written rather than spoken. Like instant messaging, chat is a form of simultaneous communication whereby users communicate mainly by typing messages to one another. In a chat room, teachers and students can talk with one person or several people at the same time. Various software programs are available, some of them using avatars, pictures that represent the individuals chatting. Newby et al. (2002: 190) emphasize the idea that although chat can be a time-consuming and confusing way to communicate, most kids love it. It does allow people from all over the world to communicate with each other in real time.

3. Teaching/ Learning with the Internet (Educational Technology)

According to Pacurari and Vizental (2000: 120-121), the general teaching/learning process and the teacher-student relationship and interactions are based on several needs shared by all language learners, i.e. information and motivation, active involvement in the learning/teaching process, practice for habit formation, exercise for skill development, communication and negotiation of meaning, development of an individual style.

All these needs can be met as long as teachers and students have access to the latest information which is available on the Web in the form of databases, electronic documents (such as e-books, hyperlinked articles, online bibliographies), artifacts, interactive whiteboards, surveys, where feedback is sent via email and computer software. Countless information resources, including text, graphics, sound, video, and virtual reality, are stored (see Roblyer, 2006; Scannell, 2008). Teachers

and students can monitor current events through online newspapers and magazines. Students can read what the local newspapers have to say about some current events and compare that with what is being written by the national news organizations around the world.

Besides *online newspapers and magazines*, *Web Quests* can be extremely helpful, they allow teachers to get their students do research; they can design the various stages of the project and select the sites that students can use to gather data in order to support their work (see Alessi and Trollip, 2001). Moreover, they are inquiry-oriented activities in which some or all of the information used by learners is drawn from resources from the Web. This approach has become one of the most popular ways of using the Web in education. Web Quests are often designed as group activities with different students assuming different roles in the activity. This approach not only encourages cooperative learning, but it motivates the learners by giving them realistic scenarios as a context for their activity; it is available for almost any grade level or curriculum area (Newby et al., 2002: 198-200).

The same authors (Newby et al. 2002: 201) also show that teachers and students can publish material on the Internet and share ideas. Many schools now have their own home pages and an increasing number are using the Web as a vehicle for students to make their work public. As a result, a student's hypermedia project that once may have been seen only by the teacher and the classmates may now be available for viewing by anyone in the world. The idea that the world can see their work is highly motivating to students, and posting students' projects to the Web for all to see does give parents and members of the community an opportunity to find out what is happening in the school. When creating web pages, students experience benefits and encounter difficulties; they have to gather, evaluate, organize, and present information on a topic. This requires students to develop logical thinking and planning skills, and the process is active and often motivating to learners.

4. Case study: Research Hypotheses and Methodology

The present study was conducted for the purpose of assessing the impact that the use of new media in the ESP classroom has on developing the students' communicative competences, according to the recommendations of *Common European Framework of Reference*, which has been adopted by the Romanian curriculum for foreign languages.

In terms of the research hypotheses, this study emphasizes the idea that by using new media in the ESP classroom the students 1) will develop their communicative competences in the target language, 2) will be more motivated to continue learning English outside the classroom and 3) will increasingly apply their acquired knowledge in real life situations.

The study was conducted within a period of one month, in the first semester of the academic year 2016-2017, on the students majoring in Applied Sciences – Oil Processing. The total number of participants in this study was 60 students, i.e. 30 students in the experimental group and another 30 students in the control group.

The following research instruments have been used: the initial test, the experiment, the observation of students' activity and attendance during the study, the final test and statistical data analysis. Both the experimental and the control groups studied the same material (The Environment: environmental issues, renewable energy, offshore wind energy, facts about drinking water, chemical and biological wastewater treatment, environment idioms). Although the lesson plans for both groups had the same teaching and learning objectives, those of the experimental group included activities that required the use of the Internet and mass media (project work, web quest, e-mail, newsgroup, etc.), while the students from the control group were provided with the traditional routine situation in the classroom. As far as the idiomatic expressions were concerned, we took into account several of their main features, such as familiarity, literality, compositionality and predictability, aiming at activating the students's ability to predict their figurative meaning (Istratie-Macarov and Leonte, 2016: 224).

Thus, the approach used with the control group was similar to task-based learning, which made the performance of given tasks central to the learning process. The students focused on the completion of different tasks and after that, the teacher discussed the language that was used, making corrections where necessary. However, they were given the necessary language before they set out to perform the tasks, like in Nunan's pedagogical approach which starts with a pre-task to build the students' schema (Nunan, 2004: 271). Then he gives the students controlled language practice for the vocabulary they might need for their task. According to Nunan (2004: 37), "learners should be encouraged to move from reproductive to creative language use". The basic techniques used in class with the control group included the use of commands, repetition and memorization, question-answer exchanges based on the texts, drilling (which involves practicing the new vocabulary items and grammatical structures through exercises, such as repetition drills, substitution or transformation exercises (Harmer, 2007; Nunan, 2004).

The approach used with the focus group was a communicative one, the fundamental goal being the shaping of the learners' communicative competences and the development of their communicative skills rather than their mastery of structures. The activities were no longer centered on content (i.e. the vocabulary and grammar structures and items to be taught and learned), but on language functions (e.g. expressing likes and dislikes, agreement/disagreement, accepting or refusing an invitation, offering to do something, seeking for information, etc.). The students were required to perform practical tasks, to carry out practical activities, using the language, in lifelike contexts. The emphasis was on interaction, on the exchange of ideas and negotiation of meaning. The students were encouraged to communicate freely, creatively. The classroom atmosphere was relaxed and supportive, aiming to reduce the students' anxiety. The techniques used with the focus group were: brainstorming (to activate the students' knowledge), discovery activities (using online dictionaries or a search engine, such as Google, to look up for words and collocations), vocabulary games, grammar games (i.e. word-ordering activities), oral exchanges in pairs, information-gap activities, writing short texts on different topics, listening to short sequences for specific information.

4. Results and Analysis

The initial test was aimed to establish how similar the experimental and control groups were in English language proficiency before carrying out the study. The test included reading comprehension skills, vocabulary and grammar skills, and writing skills.

Grades	under 5	5-5.99	6-6.99	7-7.99	8-8.99	9-10	
No. of students	3	6	5	6	6	4	
General group average	6.60						

Table no. 1 Initial test results of the experimental group

Source: author's own processing

Table no. 1 above shows the initial test results of the students from the experimental group. Only four students got grades situated in the range 9-10. Six students scored between 8 and 8.99 points and other six got grades between 7 and 7.99. Five students scored between 6 and 6.99 points, six students got between 5 and 5.99 points and three students failed the test, getting grades under 5. The average score of the experimental group was 6.60.

Table no. 2 Initial test results of the control group

Grades	under 5	5-5.99	6-6.99	7-7.99	8-8.99	9-10
No. of students	4	4	6	5	5	6
General group average	6.70					

Source: author's own processing

Table no. 2 above reveals the results obtained on the initial test by the students from the control group. Thus, six students scored between 9 and 10 points, five students got grades between 8 and 8.99, other five students scored between 7 and 7.99, while six students got grades in the range 6-6.99. Four students got grades between 5 and 5.99 and other four students failed the test, as they got grades under 5. The average score of the experimental group was 6.70.

The results of the initial test show a slight difference of the average score between the experiment and the control groups, i.e 0.10 points. The initial test was aimed at determining the level of English proficiency of the two groups of students before applying different approaches to teaching English/ESP, respectively using new media with the experimental group and applying

traditional methods with the control group. Furthermore, our initial test results also revealed that, in the case of most students, there was an obvious deficit in knowledge and this represented for us an opportunity to introduce new and relevant grammar and vocabulary items, useful in the students' future interactions (see Leonte and Istratie-Macarov, 2016: 226).

At the end of the experiment, in order to evaluate the effectiveness of teaching/learning English/ESP through the two methods (i.e. the new media applied to the experimental group and traditional methods used with the control group), both groups took a final test. For both groups, the final test exercises were selected from the materials studied in the classroom. The final test results revealed the differences between the two groups in terms of their ESP acquisition and communication skills, highlighting the effectiveness of ESP teaching/learning through new media materials. Thus, the average score of the experimental group was significantly higher than the one of the control group (i.e. 9.16 and 7.98 respectively), with a difference of 1.18 points.

As shown in Table no. 3, out of 30 students (from the experimental group), there were 9 students who scored 10; 3 students scored 9.5 points; 10 students scored 9; 6 students marked 8.5 points; 1 student marked 8 points; and 1 student got a score of 7.5. Compared to the initial test results, the general average of the experimental group increased by 2.56 points, which also highlights the effectiveness of this modern teaching method.

Table no. 3 Final test results of the experimental group

Grades	10	9.5	9	8.5	8	7.5	7	6.5	6	5.5	5
No. of students	9	3	10	6	1	1	0	0	0	0	0
General group average	9.16										

Source: author's own processing

As shown in Table no. 4, the situation of the control group improved less than expected: there were 2 students who scored 10; 6 students who scored 9 points; 7 students scored 8 points; 4 students marked 7.5 points; 6 students scored 7 points; 3 students got 6.5 points and 2 students scored 6 points. Compared to the initial test results, the general average of the experimental group increased by 1.28 points (which is lower than the increase registered by the experimental group). *Table no. 4 Final test results of the control group*

Grades	10	9.5	9	8.5	8	7.5	7	6.5	6	5.5	5
No. of students	2	0	6	0	7	4	6	3	2	0	0
General group average	7.98										

Source: author's own processing

The students in the **experimental group** involved themselves actively in performing the language tasks and in carrying out their assigned activities. They also showed a high level of interest in language acquisition and developing communicative skills.

The students in the control group also showed a very good level of participation in the class activities and were quite interested in learning English/ESP, although they registered a lower score in their language acquisition. The difference in the average scores obtained by the two groups is quite significant, i.e. 1.28 points.

5. Conclusions

The analysis of the results revealed that our research hypotheses are valid. Thus, the students in the experimental group really enjoyed the new materials used in class, which led to a high participation level in the assigned activities. Furthermore, they reacted positively towards the use of new media teaching/learning materials in the ESP classroom, getting actively involved in the tasks. The activities selected aroused their interest in developing communicative skills and increased their motivation to communicate.

The activities based on new media were student-centered, the teacher only facilitating the interaction among the young learners, who were no longer passive recipients of information. They had more opportunities to interact and produce their own language. The new tasks also met students' interests and needs. Although the students have different learning styles and preferences,

all of them enjoy activities which involve game-like communication and other interactive tasks, and thus, keep students engaged in the learning process.

The activities based on new media increased the students' learning motivation. The use of the Internet and mass media, for instance, gave them access to individual extensive learning and also provided them with a certain control over their own learning process. The word pronunciation, the instant access to words' definitions, multimedia and animations supported their understanding of the texts and the improvement of their listening and reading skills, also increasing their motivation for extensive self instruction, and for continuing their learning outside the classroom. The results clearly assessed the effectiveness of teaching English/ESP using new media with the focus group. The activities based on new media encouraged the students to think and speak in English, promoting active participation and interaction on their part, and, consequently, the development of their receptive and productive skills.

Thus, the plentiful exposure to language in use and all the opportunities offered by new media especially in the English classroom are vitally important for students' development of knowledge and skills. Despite some of the challenges that using new media pose for teachers, there are a lot of advantages that clearly outnumber the difficulties encountered in class. An appropriate planning in advance may reduce the disadvantages, turning new media into a very effective way of teaching and learning English as a foreign language.

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