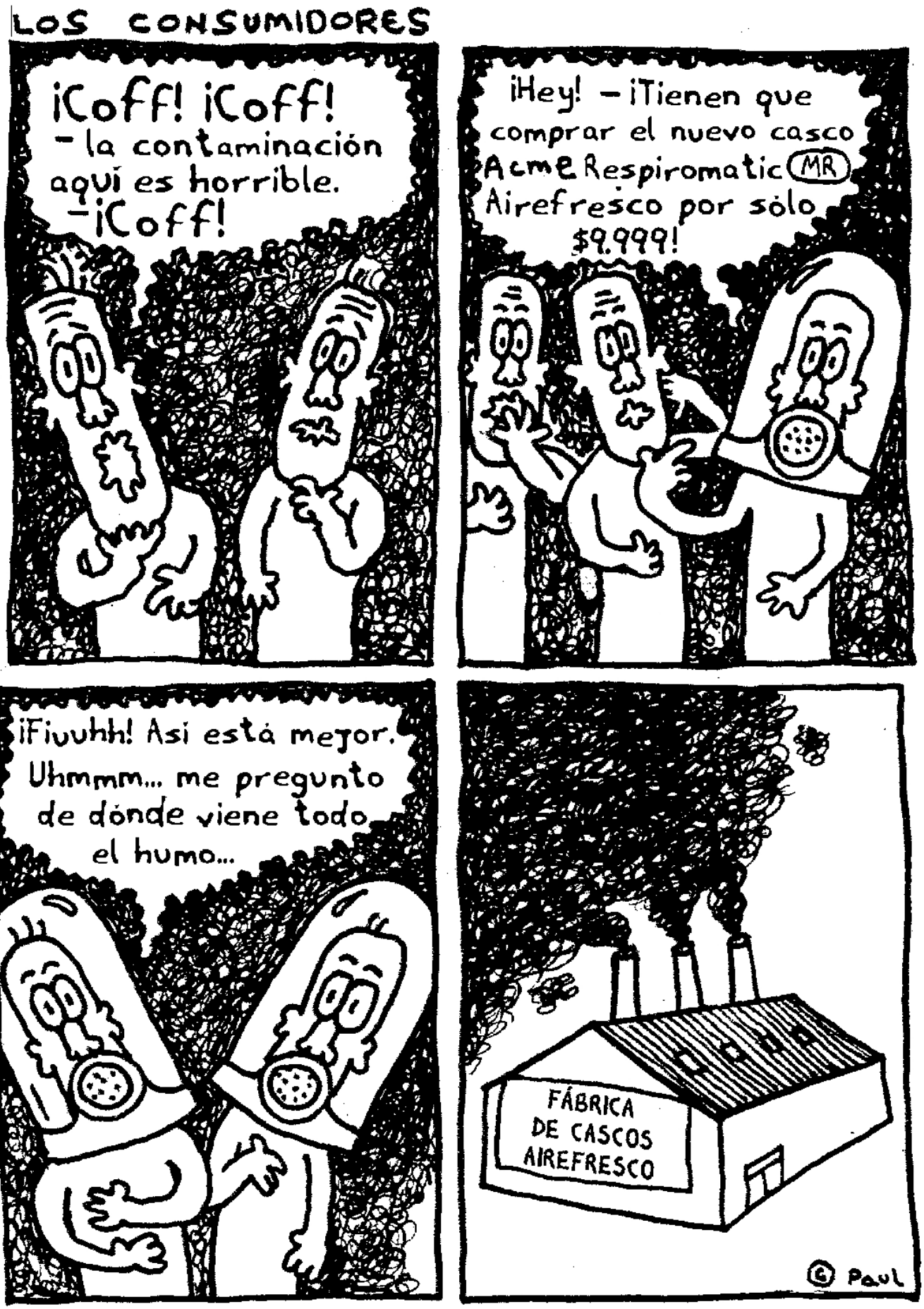

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Interaction in an EFL Reading Comprehension Distance Web-based Course

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ABSTRACT

This article reports the positive and negative effects of an EFL reading comprehension distance web-based course based on four models of interaction (Bouhnik & Marcus, 2006; Moore, 1989). The methodology used was a case study, and researchers used five different data collection instruments and the tools from the platform Moodle to collect them. Some of the positive findings include: language improvement, individualized assistance, a friendly environment, and a different teacher´s role. Conversely, some of the negative results are: the number of exercises, anxiety, limited feed-back, lack of interaction among students, and the absence of a tutorial guide. In conclusion, it is suggested that web-based courses balance the number of exercises, give deeper feed-back, encourage interaction among students, and design a tutorial.

Keywords: interaction, EFL reading, MOODLE platform

RESUMEN

Este artículo describe los efectos positivos y negativos en un curso de competencia lectora en lengua extranjera inglés en modalidad a distancia en la red basados en cuatro modelos de interacción (Bouhnik & Marcus, 2006; Moore, 1989). Como método de investigación se siguió el estudio de caso y se utilizaron cinco instrumentos y las herramientas de la plataforma Moodle para recolectar la información. Como efectos positivos se encuentra que hubo progreso en lenguaje, acompañamiento individualizado, ambiente amigable del sistema y un nuevo rol del profesor. Como efectos negativos, el curso tiene muchos ejercicios, hay ansiedad, la retroalimentación es limitada, no se incentiva a que los estudiantes interactúen entre ellos y no hay un tutorial. Como conclusión se recomienda balancear un número determinado de ejercicios, brindar retroalimentación amplia, incentivar la interacción entre los estudiantes y diseñar un tutorial.

Palabras clave: interacción, lectura en EFL, plataforma MOODLE

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1. INTRODUCTION

Some educators highlight the importance of interaction in web-based distance education. Interaction plays an important role in order to improve learning in a web-based distance course. Wagner (1994) argues, "Interactions are reciprocal events that require at least two objects and two actions. Interaction occurs when these objects and events mutually influence one another" (p. 8). Students and teachers have the possibility to interact with each other through electronic bulletin boards, email, or chats. Moore (1989) and Bouhnik and Marcus (2006) support that there are four kinds of interaction in a web-based distance education: interaction with content, the teacher, the students, and the system.

These four types of interaction are fundamental in web-based education through the usage of asynchronous or synchronous tools (Lavooy & Newlin, 2008). Interactivity is a key factor to improve web-based learners' educational experience and it is vital for teachers or designers to create the types of activities that lead learners to be involved in the four kinds of interactions.

We decided to explore these kinds of interactions and their effects during an EFL reading comprehension distance web-based course in a graduate program at Universidad de Antioquia. The findings are derived from a major research project: "Efecto de las modalidades de instrucción virtual y presencial en la comprensión de lectura en inglés para los posgrados de la Universidad de Antioquia." The aim of this project was to identify the effect of each modality in terms of motivation, reading strategies, vocabulary, and interaction. With this paper, we concentrated on interaction and we would like to share some findings of a web-based distance course in order to contribute to the improvement of English teaching in this modality in Colombia. Our study explored the four types of interaction and the following research questions guided our inquiry:

What are the most common interactions presented in the web-distance reading comprehension course?

What are the positive and negative effects in each type of interaction?

2. LITERATURE REVIEW

In this section, we will present three main topics: web-based education, interaction, and reading comprehension in a foreign language.

2.1 Web-based education

Kiriakidis (2008, p. 12) argues that web-based education gives students opportunities to learn via the Internet, which offers a lot of options to students to learn because they have access to courses, methods of communication such as asynchronous discussions, academic resources, among others. Education via the Internet has increased in the last years. Picciano (2002, p. 21) argues that 1.3% of post-secondary students take online courses in the United States. Although there is not a precise number of students who attend education via Internet in Colombia, institutions such as Universidad de Antioquia, Universidad del Quindío, Universidad de Manizales, and Servicio Nacional de Aprendizaje (SENA) offer web-based distance education.

Courses are almost always available for students at any time. The only two things to consider are internet connection and equipment. The user may experience technical difficulties connecting to a course if these two things are not guaranteed. The web allows access to course materials for those who reside large distances away from the university or have job-related responsibilities. Learners can take courses from different places that match their schedules. This becomes quite appealing to adult students because they can handle jobs, education, and family simultaneously (Kember, Lai, & Murphy, 1994).

When learners take responsibility for their own learning, it leads to autonomy. Andrade and

Bunker (2009) supported that "learner autonomy involves the learner's ability to create a learner plan, find resources that support study, and self-evaluate."(p. 48). In this process, students learn at their own pace and they use their own learning strategies. Students also reflect on their learning process, take initiative, explore, find options to the problems, and contrast results (Arnó, Rueda, Soler, & Barahona, 2004).

However, web-based distance education has some disadvantages too. Students may not be satisfied with this kind of modality. Research supports that a high number of students who begin a web-based distance course do not finish it (Dutton & Perry, 2002; Roblyer, 1999). Marcus (2003) suggests some of the reasons why students are dissatisfied with web-distance education: absence of a *learning atmosphere*, the distant contact among students, and self-discipline are some of them. Moreover, Hara and Kling (2003) state that students experience a kind of distress when they study in this modality. Students may have a feeling of frustration, isolation, anxiety, confusion, and panic because most of the users are worker students and they have to interact with the course at night, or on the weekends, and they do it alone. Students may have difficulties resolving academic as well as technical problems leading them to be confused, frustrated, anxious and then they panic.

Another disadvantage is the possible lack of feedback. Brandl (2005) argues that web-based students complain about the lack of feedback. One of the reasons is that teachers do not usually give feedback to students as soon as students submit a task. Sometimes they have to wait for hours or days to get an answer.

2.2 Web-based distance interaction

Thurmond (2003) defines web–based distance interaction as:

> The learner's engagement with the course content, other learners, the instructor, and the technological medium used in the course. True interactions with other learners, the instructor, and the technology result in a reciprocal exchange of information. The exchange of information is intended to enhance knowledge development in the learning environment. Depending on the nature of the course content, the reciprocal exchange may be absent – such as in the case of paper printed content. Ultimately, the goal of interaction is to increase understanding of the course content or mastery of the defined goals. (p. 4)

Picciano (2002) argues that in order to have a successful interaction, students must adjust to the asynchronous way of web-based education. They have to interact with different elements and have to gain experience and knowledge. Therefore, it is important for faculty to design a course in which interaction is seen as the most important key factor in web-based contexts.

Moore (1989) divides interaction into three traditional categories in web-based distant education: (a) interaction with content; (b) interaction with the instructor; and (c) interaction with the students. Bouhnik and Marcus (2006, p. 209) add a fourth category: (d) interaction with the system.

2.2.1 Interaction with content

The student has to interact with the subject matter the web-distance course delivers. As soon as the student finds new information, he/she combines it with the previous information he/she has (background knowledge) leading to the understanding of the text. The dialog between the student and the content is evident in this type of interaction. Moore (1989) states that there is no education without this type of interaction.

2.2.2 Interaction with the instructor

Swan (2001) argues that this type of interaction follows the patterns of interaction of face-to-face, even online. Asking for help, questions about doubts of a specific exercise, and waiting for advice are some of the characteristics of web-distance education. Nevertheless, Moore (1980) states that

there is a psychological and communicational gap between the students and the teacher due to the physical distance they both face in this modality. However, if participants maintain a constant dialogue between them, this may bridge that gap. The teacher plays an important role to start or guide this dialog. Finally, Goodyear, Salmon, Spector, Steeples and Tickner (2001) point out the role of the teacher in seven important issues in web-based contexts: as facilitator, advisor-counselor, assessor, researcher, content facilitator, technologist, and designer.

2.2.3 Interaction with the students

This is the interaction among students. Students have access to interact by using e-mails, chats, or forums. Some authors argue that this interaction in web-distance education may lead students to be more reflective, participative, critical, and encourage brainstorming (Jonassen & Kwon, 2001; Klemm & Snell, 1996; Lai, 1997). One of the most important reasons is that all students have the chance to participate and nobody dominates a dialogue. Due to the asynchronous nature of the modality, students have time to reflect on their peers' ideas and then help building a network of ideas leading to collaborative thinking (Jonassen & Kwon, 2001; Trentin, 1998).

Research has shown that asynchronous interaction has some disadvantages, too. Delay to receive a reply, lack of spontaneity and nonverbal features may be troublesome in this modality (Harasim, 1986; Bonk, 2001)

2.2.4 Interaction with the system

This interaction requires the users to understand the technological systems. Although the learner can usually handle the system, there is no guarantee that the student will have representative knowledge in this interaction. Students have to be in contact with a transparent technology in order to avoid a psychological or functional barrier. When students face a technological problem, a solution must be given in order to avoid negative effects on the student's level of satisfaction (Bouhnik & Marcus, 2006). Carswell and Venkatesh (2002) support the idea that if learners' perception of the technology is positive, the learning outcome is positive.

Bouhnik and Marcus (2006) list some advantages in using the system in order to create interaction:

- Students can check and go back to previous academic discussions all times they want.
- Students have the possibility to request any information at any time when they encounter any doubt of the topic
- Due to the tools the system offers, teachers have to think about how to assign activities for students in order to maximize the benefit of learning
- The accessibility of self and group data offers both the students and the teacher a new instrument for interaction. Also, both students and teacher can monitor the progress in learning through the system.

2.3 Reading

Dubin and Bycina (1984) argue that reading is a selective process that occurs between the reader and the text where background knowledge and language knowledge play a very important role for comprehension.

Cassany (2006), González (2000), Grabe and Stoller (2002), and Weir (1993) see reading from a cognitive view, where prediction, interpretation, hypothesis statement, attention, memory, and perceptual processes are very important when decoding a written message. Cassany (2006) reports that these processes are more complex in a foreign language because the reader is not familiarized with syntax, vocabulary or culture, which implies a bigger effort when trying to develop this competence. Thus, a set of reading

strategies is very important for learners.

Cohen (1990) defines reading strategies as "those mental processes that readers consciously choose to use in accomplishing reading tasks" (p. 83). Reading strategies help learners conceive a task, identify what textual cues they have to pay attention to, make sense of what they read, and decide what to do when they have troubles understanding the text (Block, 1986). These reading strategies range from the simple ones (e.g., scanning, guessing word meaning, previewing) to the complex ones (e.g., summarizing, inference, tone).

When fluent readers apply simple and complex strategies two processes are involved: lower-level processes and higher-level processes. The former are linked to vocabulary and grammar recognition, the latter are associated to comprehension and interpretation of a text. Grabe and Stoller (2002) support that a fluent reader needs the combination of these two processes, and if she/he does not have this combination the reader might not be as efficient as she/he should be.

Leu and Kinzer (2000; Leu, 1997; Leu, Kinzer, Coiro, & Cammack, 2004) state that reading in web-based environments should be seen as a new literacy. The new virtual environments offer richer and more complex information for teachers and students. Teachers will find a lot of changes in the way they guide their students because they are in the transition from printed material to the World Wide Web full of content.

3. CONTEXT

Graduate students in Especializaciones[1] at Universidad de Antioquia, have to certify reading comprehension in a foreign language to be admitted to the second semester of their specialization. They have the options of taking a proficiency test, or taking a face-to-face course. A new web-based option for students emerged in 2007. EALE (Enseñanza y Aprendizaje de las Lenguas Extranjeras) research group from the School of Languages at this university designed this course in order to help students of web-based graduate programs to fulfill the requirement. In 2009, EALE decided to carry out the project called: "Efecto de las modalidades de instrucción presencial y virtual en la comprensión de lectura en inglés en los posgrados de la Universidad de Antioquia." The aim was to evidence the experience with the web-based distance education in comparison with the traditional face-to-face course.

3.1 Description of the web-based reading comprehension course

The course called "Competencia lectora en inglés para postgrados" was a 120-hour course. Both students and teacher had to dedicate 10 hours weekly. The course had five academic units and was designed in the platform MOODLE (Modular Object-Oriented Dynamic Learning Environment). The course started with an introductory unit in which all the information about the course was displayed: objectives, evaluation, content, scheduling of activities, recommendations, and sources. Also, it had some links for resources, for online dictionaries, and for reading practice.

Each unit had a thematic name, an objective, a guided map of topics, an introduction, theory and examples, practice that included exercises and workshops, links for practice, bibliography and webliography. For the evaluation, each unit was worth 20% and there was a test in all of them. There were two types of evaluation: automated and manual. In the first type, the platform MOODLE evaluated the exercises and the students received

[1] *Especialización* (specialization) is a graduate program that usually lasts two semesters. Students update their knowledge and improve their professional practice when they take these programs.

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the scores and comments instantaneously. In the second type, the teacher had to evaluate the students' exercises and then he sent a score with a comment. Due to the low level of English of the students and to facilitate the learning process, both the teacher and the students used Spanish to communicate. The course content, readings, examples, and exercises were in English.

The detailed description of each unit is:

Unit	Name	Topics
1	Word and their meanings	Dictionary use, parts of speech, cognates, affixes, word meaning in context
2	Reading strategies	Prediction, skimming, scanning, and graph interpretation
3	Development of reading skills	Sentence structure, topic, main idea, and referents
4	Text organization methods	Cause and effect, comparison and contrasts, description, narration, argumentation , and classification and categorization
5	Critical reading	Fact and opinions, tone, and arguments

3.2 Platform MOODLE

MOODLE stands for Modular Object-Oriented Dynamic Learning Environment. The platform is a free intuitive, template-based network system that helps teachers to design virtual courses, teach lessons, assign activities, and assess students' performance. Ardila and Bedoya (2006) state that this kind of learning environment may help students to develop skills to self-construct knowledge as the platform offers many tools to work collaboratively.

Brandl (2005) argues that the platform involves a constructivist and social constructionist approach where both teachers and students participate and contribute to interaction in this educational setting.

4. METHODOLOGY

This project follows the methodology of an exploratory multiple case study as we wanted to do a deep exploration of the web-based distance course using different instruments to gather data (Creswell, 2007; Merriam, 1998; Tellis, 1997; Yin, 2003). We adopted the multiple case design because we analyzed real-life events that showed numerous sources of evidence through replication in the course. We also followed a case study because it allowed us to analyze personal insights from the teacher and students as well as data records from the platform MOODLE. We tallied and then grouped the events of interaction in the different instruments according to our opinions. We first had an individual reading to consider relevant issues and then shared our patterns in the research group meetings. We named and coded issues of interactions and we constructed categories through our discussions (Freeman, 1998). Then, we analyzed the data according to the existing theory of interaction and validated our findings.

Finally, participants signed a consent form stating that their participation was voluntary and their identity was protected. The form also stated that data gathered were going to be used for archival purposes.

5. PARTICIPANTS

5.1 The students

The course began with 38 students and only 21 finished the all process. Ages ranged between 23 and 49 years. They were all enrolled in the first semester of a specialization in Law at Universidad de Antioquia in Medellin (Colombia). All of them had full-time jobs and most of them lived and worked in Medellín where Internet and connectivity were always available. Some

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participants lived or worked in municipalities far from the metropolitan area with problems of connectivity to the Internet. Some of them did not even have Internet at home, and they had to work on the web-based virtual course from the office or internet cafes at night or during the weekends.

Few students had experience with web-based virtual education. Some expressed they had taken free virtual courses at SENA. Regarding exposure to language, they expressed they had only studied English in high school.

5.2 The teacher

The teacher holds a Master degree in Language Teaching and has a lot of experience teaching face-to-face EFL reading comprehension courses for both graduate and undergraduate students. Nevertheless, it was his first experience teaching a web-based reading comprehension course and he was quite motivated to teach this course. He also had computer skills and was part of the team who designed the course making him confident to teach this course.

6. DATA COLLECTION AND ANALYSIS

Data presented here were gathered through questionnaires, observations, in-depth interviews, a teacher's journal, focus groups, and tools that the platform MOODLE offers. The purpose of each instrument is explained below:

Questionnaires: We used four questionnaires to evidence interaction: self-assessment, motivation, evaluation of the teacher, and the evaluation of the platform MOODLE. Students ranked their learning process from a scale of 1 to 4 (4 the highest). They also had to select multiple choice questions in two of the questionnaires and had to answer some open questions. The objective of these questionnaires was to ask the students to self-verify the process of learning. We designed all questionnaires.

Observations: Observation is a technique that allows the researchers to assess issues such as teaching, behaviors, materials, and interactions (Brown, 1994). We analyzed the web-based course content, evaluations of each unit, exercises, forums and chat sessions. We also analyzed the e-mail exchanges that occurred between the teacher and the students.

In-depth interviews: We selected two students as key respondents (McNamara, 2009). The one who obtained the best score and the one who expressed the highest number of difficulties in the course. The objective to use this technique was to explore deeply issues such as motivation, improvement in reading comprehension, advantages and disadvantages of the web-based environment, and students' perceptions about the platform MOODLE. We audiotaped and transcribed these sessions using regular orthography.

The teacher's journal: The teacher kept a journal in order to record his observations as well as reflections along the course (Jeffrey & Hadley, 2002). We analyzed this instrument to get insights from the teacher.

Focus group: We asked students to participate in focus group sessions in order to comment about their learning process during the web-based distance course. Kamberelis and Dimitriadis (2005) state that this technique helps researchers verify students' perceptions, opinions, beliefs and attitudes about an issue, in this case, about the course. We also audiotaped and transcribed these sessions using regular orthography.

Tools from the platform MOODLE: We analyzed different issues in the web-based course: the content, exercises, evaluations, and forums and chat sessions.

7. FINDINGS

Based on Moore (1989), Bouhnik and Marcus (2006) we concentrated our attention on observing the effects of the four types of interaction identified in this distance web-based

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reading foreign language course. The results are the following:

7.1 Interaction with content:

a. Positive effects

Great interaction and learning: We found that students had a *great interaction with the subject matter of the course*. Some of them even supported and verbalized the positive interaction with the content, one of them expressed in the self-assessment instrument:

> From the course, I can tell I learnt a lot and I entrenched many concepts I had forgotten or that I did not remember very well. Some of the aspects I highlight are: I find it easier to read texts in English; I enriched my vocabulary; I can read and interpret graphics with less difficulty; I can identify different kind of texts; I analyze and take main ideas from texts; it is easier for me the use of the dictionary and the use of technological resources; I learned a lot and I am very motivated to keep on studying the language.

Students had to grade themselves in the self-assessment instrument. The results of the instrument showed that students improved in the subject matter especially in identifying the implied main idea, distinguishing facts and opinion, summarizing texts, and recognizing relations of comparison and contrast, cause and effects, and time order. Appendix 1 shows the questionnaire in which students had to grade themselves from 1 to 5 (5 the highest). Nineteen students out of 21 placed themselves between 5 and 4; this means that they recognized they gained mastery in the subject matter.

Students also applied the reading strategies they learnt in foreign language to their daily reading routines in their mother tongue leading to positive transfer. Odlin (1989) defines transfer as "the influence resulting from similarities and differences between the target language and any other language that has been previously (and perhaps imperfectly) acquired" (p. 27). Students applied the reading strategies to their academic or job duties when they read in their mother tongue and it is seen as a positive effect. One of the students reported: "With this course we learnt a lot for our jobs, to apply those strategies when we have to read lots of material in Law."

Students reported improvement with the subject matter because of the frequent contact they had with the content. Two hours per day was a key factor for mastering the course content. Thurmond and Wambach (2004) highlight a continuous contact with the content as a key factor to gain mastery.

Another source that showed improvement with the subject matter is the results of evaluation in each unit, and this is supported by the observations and the diary of the teacher. The observers and the teacher noticed that students had good scores along the course especially in Unit 5. The teacher expressed the following in two entries:

> Students seemed to have been doing great with the exercises, I mean they seemed to be understanding the exercises and therefore they seemed to perform well with the questionnaires. I haven't seen a single student having bad grades in the exercises or failing in all their attempts, I have noticed some students having problems with some exercises, not understanding some instructions or having technical difficulties with some exercises, but not students performing bad in the course.

> Unit 5 had very interesting issues to reflect about. The first issue is that students' performance during the exercises in Unit 5 was very good, most of the grades and the exercises are on 5, I mean most of the exercises had the best grade.

There might be a connection between performance and scores in reading. When students apply appropriate application of reading strategies they may obtain good scores. However, this issue has to be explored deeply in other studies.

b. Negative effects

Too many exercises: Students reported that the number of exercises they had to do was

overwhelming. One of the students reported in the self-assessment instrument: "There are too many questionnaires, and we have to do them all. Nevertheless, it is a sacrifice but we have to do them; it is a good idea to have fewer exercises and to have an extension of the deadline."

The teacher also reported that it was time consuming to check and correct all the exercises that needed hand-grading. In fact, he said that he was behind scoring the exercises due to the amount of these:

> I will start saying that grading UNIT 2 was hard, because there were so many exercises to correct and grade. I tried to have exercises corrected so that students could have a second chance, but it was really hard as students did their exercises at the last minute. In other words, I found that it was really hard to keep exercises correction updated.

Time concerns: Handling time was troublesome for students. Most of them usually left exercises for the last day of each unit. Some students even asked for more days to complete the exercises. We validated this negative issue from different sources: students' self-evaluation, the platform forums and chats, and the teacher's diary and e-mail. In all these instruments time concern was a constant.

7.2 Interaction with the instructor:

a. Positive effects

All the instruments applied support the fact that one of the greatest advantages of this web-based distance course is that you have an *individualized interaction with the teacher*. One of the students expressed in his motivation questionnaire: "What motivates me is how direct and personalized the communication is. It is so nice to interact with the teacher; he is always willing to resolve your concerns."

Also, *the role of the teacher varied* in this modality and researchers categorize his new role *as a technical knowledge expert*, (Muñoz & González, 2010, p. 77). The teacher expressed in his journal that he spent a great deal of time solving students' basic questions regarding computer configuration. The teacher reported:

> A very important reflection I have from this virtual course, it is related to the role of the teacher in this virtual course. I realized that the teacher not only needs to be able to help students through content and grade their activities, but also be able to provide "technical support" to students' on the different issues concerning the platform.

In the evaluation of the platform questionnaire, one of the students reported: "The registration process is a little complicated while you get used to the platform, but the teacher is an excellent guide."

Another positive effect is that students perceived the role of the *teacher as an immediate feedback provider* (Muñoz & González, 2010, p. 78). Students felt being accompanied by the teacher because he was always *there* answering their questions. Although he was not signed in 24 hours a day, the teacher tried to help students to develop academic, administrative, and technical issues with the course as much time as he could. One of the students reported in the in-depth interview: "I asked the teacher a lot of questions and his answers were always timely."

b. Negative effects

Although students saw the teacher as an immediate feedback provider, their *anxiety* sometimes made him seem not that fast, leading to *a negative psychological effect*. Students were quite worried when they finished their exercises and the teacher did not score or correct them right away. One of the students expressed in the motivation questionnaire: "Another discouraging situation is that you cannot get the score of an exercise immediately after sending it when this one requires review from the teacher, so you have to wait without knowing if you did it right or wrong."

Also, the teacher noticed this kind of anxiety in

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his students. He commented on this issue in one of his entries in the diary: "Students seemed to be very worried when they finished an exercise and they did not find an automatic grade."

When correcting or grading students' exercises, the teacher did not give deep feedback in the platform, leading to limited feedback. The amount of exercises may explain why he gave limited feedback. The teacher was behind correcting the exercises and usually could not give specific academic reasons to students. He wrote comments like these in the exercises: "Not a good answer.... not very well explained! Not a good main idea! Not a good answer... you did not understand the exercise!"

7.3 Interaction with the students:

We observed that *this interaction was the weakest* among the four types and there are two main reasons that support the lack of interaction among students:

Students worried about making mistakes in public or felt that their level of English was lower than their peers and therefore interaction among students was weak. Muñoz and González (2010, p. 79), Boling (2008, p. 93) argue that learners do not want to be judged by peers or teachers and so avoid participation. As an example of this, the teacher wrote in his diary:

> Students had to introduce themselves to the course and some of the people in this presentation did the presentation in English, some students did not feel capable of doing the presentation in English, so they did not do it or they did it in Spanish with a single sentence... they were surprised to see how their classmates were so advanced with the language. I noticed how this was one of the reasons for students not to participate in the course.

The lack of expertise of the teacher: Although the teacher had experience teaching face-to-face reading comprehension courses in FL he was a novice teaching web-based distance courses. We analyzed all the instruments and we noticed that the teacher almost never prompted interaction among students. He thought that the lack of interaction among students was a matter of their attitude. The teacher expressed this feeling in two diary entries:

> I have the feeling virtual students are not quite willing to participate; they are more concerned on completing the exercises and finishing their activities.

and

> I really believe students could use the forum, the chats or the e-mails for asking about any doubt they could have; however students did not bother.

Nevertheless, we took a closer look at this and noticed that the teacher did not activate academic participation among students such as group work or pair work. He only asked the students to participate in chats in order to talk about general things about the course: technical problems, feelings, evaluation, deadlines and so on. This is important but the call for interaction among students is a must. Collison, Elbaum, Haavind and Tinker (2000) argue that teachers have to use conversational techniques in order to deepen academic dialogues among students. Muirhead (2005) support that online teachers have to involve students in an interaction level that fosters the instruction for individuals and student groups.

7.4 Interaction with the system

a. Positive effects

Some students argued that the platform MOODLE has *a friendly environment* leading to work in an easy manner. One of the students expressed in the course evaluation: "I think the platform is excellent, fast, fresh, and friendly."

Also, students argued that they felt motivated due to the *different tools* the platform offered. One of the students supported this in the motivation questionnaire: "Something that motivates me is that this course is updated with many tools to take

advantage of."

Another positive effect about the platform was its *availability*. The platform MOODLE was always available for students and they could work at any time or place leading them to economize time, money, handle family, work and study at the same time. The following quotations taken from the self-assessment instrument support this positive effect:

> Working from home allowed me to dedicate enough time to my academic activities without leaving my family aside. Also, It was nice to experiment another way of studying different from the face-to-face one, and that allows us to use different ways to solve our doubts without being dependent on the teacher.

> It also allowed me to optimize my time, to save money and to do all the activities I have to do as a mom and a housewife, without leaving aside my work and academic responsibilities.

b. Negative effects

On the other hand, some students complained about *having trouble with the platform MOODLE*. The main concerns were registering into the platform, using some tools, and the automatic evaluation without being corrected by the teacher.

Also, students noticed that the platform *MOODLE was not that reliable* because they followed instructions such as highlighting words, cutting and pasting sentences but the platform sometimes did not recognize some actions. One of the students expressed in the focus group:

> In one of the evaluations we had to underline some words and highlight some others with different colors. I did the whole exercise and I sent it, but the platform did not recognize it and obviously my grade was zero. I had to use my second chance to do all the work I had already done.

Another negative effect was about guiding students to use the platform. Both the platform and the course designers did not offer *a tutorial guide* regarding the use of the platform for students. This issue caused negative effects on the process of learning; they learnt some things by "learning by doing." They did not get any information about how to use the platform, the requirements regarding equipment or the basics for using Office. One of the students expressed in the evaluation of the course: "I think the explanation about how to complete the exercises could be more complete. At the beginning I had some difficulties, but at the end it was noticeable that some classmates did not know how to answer some exercises."

8. CONCLUSIONS

Interaction in general plays an important role in web-based distance education. In this article, we have explored the positive and negative effects of the four kinds of interactions presented by Moore (1989), Bouhnik and Marcus (2006). Regarding positive effects we found that language improvement, positive transfer, individualized guide, friendly environment with the system, and a different role of the teacher are the most outstanding ones. Regarding negative effects we outline some considerations for improvement:

The first observation we make regarding the first interaction (interaction with content) is that the teacher or designers have to balance the amount of exercises. This is hard to control but a moderate number of exercises have to be established. The observation of the teacher and the comments of the students may work as a guide to establish the number of exercises.

The second observation is connected with the interaction with the teacher. In this modality the role of the teacher is not only guiding the students with the content but also guiding technical issues. Teachers have to be available to answer technical issues when students face difficulties. On the other hand, the teacher has to give deeper feedback when she/he answers or corrects students' exercises. If these two issues are taken into account students may lessen their anxiety, thus avoiding a negative psychological effect.

We found that the interaction with the students

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was the weakest. The role of the teacher is crucial to avoid this lack of interaction. The teacher has to be creative in asking genuine questions or finding strategies about the subject matter and then involve students in forums or chats in order to have an academic dialogue. Also, the teacher has to ask students to work in pairs or groups when she/he assigns and then gives a call for co-learning. Finally, when the teacher calls on students to participate among themselves, the feeling of isolation lessens and the sense of community arises.

Finally, in the interaction with the system, it is very important to have a tutorial in order to guide students through the use of the platform and the subject matter. This tutorial may also lessen students' anxiety. The tutorial should guide them through the whole registration process and will give them the basic information they need to begin working on the course.

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APPENDIX 1

	Linguistic Aspects	5	4	3	2	1
1	I recognize contextual clues to infer the meaning of a word.					
2	I correctly answer comprehension questions based on graphs or charts.					
3	I properly identify the implied main idea in a reading.					
4	I infer information that is not explicit in a reading.					
5	I identify the purpose and tone of the author of a reading.					
6	I distinguish among facts and opinions.					
7	I adequately summarize a reading.					
8	I distinguish relations of comparison, contrast, cause and effect, and chronological sequence between sentences that compose a reading.					

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