Interaction in a Blended Environment for English Language Learning[1]

Interacción en un Ambiente Combinado para el Aprendizaje del Inglés

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Abstract

The purpose of this research was to identify the types of interaction that emerged not only in a Virtual Learning Environment (VLE) but also in face-to-face settings. The study also assessed the impact of the different kinds of interactions in terms of language learning. This is a qualitative case study that took place in a private Colombian university. Theories related to interaction, foreign language learning, and the use of technology in the EFL classroom were taken into account for analyzing the data. The data revealed a new type of interaction and the need to have specific subdivisions of the established types of interaction.

Keywords: Blended learning (B-learning), English as a foreign language, interaction, Virtual Learning Environment (VLE)

Resumen

El propósito de esta investigación fue identificar los tipos de interacción que surgieron no solo en los ambientes virtuales de aprendizaje sino también, en los ambientes presenciales. Además, este estudio evaluó el impacto de los diferentes tipos de interacción en función de aprendizaje de una lengua extranjera. Ésta es una investigación cualitativa que se llevó a cabo en una universidad colombiana privada. Teorías relacionadas con interacción, aprendizaje de inglés como lengua extranjera y el uso de la tecnología en el aula de clase fueron tenidas en cuenta para el análisis de la información. Los resultados revelaron un nuevo tipo de interacción y la necesidad de tener sub-divisiones específicas de los

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tipos de interacción establecidos.

Palabras clave: Aprendizaje combinado (B-learning), inglés como lengua extranjera, interacción, Ambientes Virtuales de Aprendizaje (AVA)

Resumo

O propósito desta pesquisa foi identificar os tipos de interação que surgiram não só nos ambientes virtuais de aprendizagem senão também, nos ambientes presenciais. Além do mais, este estudo avaliou o impacto dos diferentes tipos de interação em função da aprendizagem de uma língua estrangeira. Esta é uma pesquisa qualitativa efetuada em uma universidade colombiana privada. Teorias relacionadas com interação, aprendizagem de inglês como língua estrangeira e o uso da tecnologia em sala de aula, foram consideradas para a análise da informação. Os resultados revelaram um novo tipo de interação e a necessidade de ter subdivisões específicas dos tipos de interação estabelecidos.

Palavras chave: Aprendizagem combinado (B-learning), inglês como língua estrangeira, interação, Ambientes Virtuais de Aprendizagem (AVA)

Introduction

This research has two core aspects: Interaction and Blended Learning. The former is one of the topics that concerns most of language teachers because as Brown (1994) mentions, "In the era of communicative language teaching, interaction is, in fact the heart of communication; it is what communication is all about" (p. 169). Therefore, the main purpose of learning foreign languages is to interact with other people to broaden perspectives in order to better understand and comprehend our own culture and also to be aware of cultural differences.

Blended learning, the latter, can be understood in different ways; Sharma & Barrett (2007) define Blended learning (B-learning) as follows: "Blended learning refers to a course which combines a face to face classroom component with an appropriate use of technology" (Sharma & Barrett 2007: 7).

The university in question has its own virtual platform for pedagogical purposes; nevertheless, it had not been previously used for foreign language teaching and learning and research in this area since its implementation. Consequently, the purpose of this research was to design and implement a virtual module based on a blended learning approach and then, identify and analyze the emergent types of interaction for language learning in both settings (on-line and face

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to face).

The interaction models of Gilbert & Moore (1998) and Hanna, Glowacki-Dudka & Conceição-Runlee (2000) were taken into account for the development of this research project. The results revealed a new type of interaction and the need to have specific subdivisions of the established types and subtypes of interaction.

Literature Review

Blended Learning for Language Learning

According to Sharma & Barrett (2007), the term blended learning (B-learning) was first used by business people for situations in which employees could work, and at the same time take a training course without interfering with their work activities, saving time and money. Authors such as Frendo (2005), Bonk & Graham (2005), and others have defined blended learning as a mix between face-to-face instruction and online classes. In Sharma & Barrett's words, "Blended learning can exploit the best of both worlds" (2007, p. 8).

Lam, Akkerman, Horst, De Laat, and Monachesi (as cited in Klink, 2006) mention, "The correct blend of blended learning must be aimed so that there is an overlap in the resources, because the students should be able to obtain the same information by means of several formats and manners" (p. 26). However, some blended learning courses have been designed in such a way that there is no combination between the delivery methods.

The connection between blended learning and language learning has had a long process. Technology has been used in different fields of knowledge including learning of English as a foreign language. CALL stands for Computer Assisted Language Learning and is commonly defined as using computers in the language classroom. Kessler (2007) suggests that CALL is not being used adequately due to the lack of teachers' knowledge in the area of creation and preparation of CALL materials to be used by students. Kessler (2007) also gives some steps when using CALL; those steps include pre-, during- and post-computer work. It means that the work done in the computer should not be isolated from the activities done in class. This is exactly the purpose of B-learning, to integrate the contents students receive in the platform and in classroom to reinforce knowledge. Leakey & Ranchoux (2006) connect CALL and blended learning as follows:

Blended learning in CALL is the adaptation in a local context of previous

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CALL and non- CALL into an integrated program of language teaching and learning drawing on different mixes of media and delivery to produce an optimum mix that addresses the unique needs and demands of that context. (p. 398)

Thus, there are advantages to using blended learning for language learning, including the variety of activities teachers can develop, bearing in mind the students' needs, not only by using computer resources, but also with the use of non-computer resources.

Interaction

Interaction is a broad term; for this reason, authors such as Kumaravadivelu (2003), Gilbert and Moore (1998), and Hanna, Glowacki-Dudka and Conceição-Runlee (2000) have studied and classified different types of interaction, but in two different fields of study. The former has focused on second language learning and the latter in blended learning. Student-content interaction, student-student interaction and student-teacher interaction are the three types of interaction (Gilbert & Moore, 1998). This is complemented by Hanna, Glowacki-Dudka, and Conceição-Runlee (2000), who classify interaction in blended learning approaches as human and non-human interactions.

Human Interaction

As mentioned by Hanna, et al. (2000), this type of interaction includes student-student interaction, student-teacher interaction and student-guest interaction. According to Moore (1989), student-teacher interaction has as main purpose to motivate students to use the contents and provide them with enough material to practice it. Student-student interaction, as mentioned by Gilbert and Moore (1998), is quite important for learning, but it depends on different factors such as students' ages, experience with the language, and how autonomous students are.

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Non-human Interaction

Non-human interactions include student-tool interaction, student-environment interaction, and student–content interaction. Student-tool and student-environment interactions are similar in essence because both refer to the communication between the student and the VLE. This involves knowing how to use the tools as well as the VLE, and having

the appropriate technological skills. Gilbert and Moore (1998) define learner-content interaction as "the process of intellectually interacting with content that results in changes in the learner's understanding, the learner's perspective, or the cognitive structures of the learner's mind" (1998, p. 2). Hillman, Willis and Gunawardena (1994) added learner-self interaction which is about students' reflections and analysis over their own learning process and which could be integrated to human interaction.

Methodology

Research Design

This is a qualitative research because it does not aim to count how many times interaction is present in a blended learning setting for language learning or to show a cause-effect relationship between two or more variables. Rather, it seeks to describe and analyze the ways in which interaction might be found in a blended learning environment for language learning at a private university in Colombia. The main question of this study is the following: How is interaction when using a blended learning approach for foreign language learning?

Context and Participants

The study took place at a private mid-sized university in Colombia. The study participants were 17 people; 1 English teacher and 16 third semester students (5 males and 11 females) enrolled in a non-English major program (students of different health care undergraduate programs), and who were enrolled in a first level English I class.

Instructional Design of the VLE. The university has its own VLE divided into eight different resources including the following: 1) free content, 2) forums, 3) team activity area, 4) True/ False tests, 5) multiple choice tests, 6) glossary, 7) activity reception area and 8) a specific area where the tutor can track how students explore the VLE. The True/False and multiple choice tests have no limit of tries. This virtual module lasted 13 weeks. Students from the School of Health Sciences developed different activities, both on the VLE as well as in the classroom as part of the face-to-face component. There was an overlap in the activities designed for each of the environments; the material and activities in both environments were closely connected so that students could go back and forth from one environment to the other to complement the information.

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Data Collection Instruments

Semi-structured interviews were used in order to have a clear direction and theme, but still allowing the participants to express their points of view and expand on answers. Those interviews were conducted at the beginning and in the middle of the study. The students' reflections were used in order to gain information about their insights and views in respect to their English learning on a blended learning environment. In addition, physical and virtual artifacts were also used to analyze the different types of interaction found in the VLE and in the classroom. Finally, another instrument included a diary kept by the teacher/researcher in order to write and reflect on students' responses and attitudes in terms of interaction and other evidenced aspects.

Data Analysis and Interpretation

For this study, the category construction approach was followed, which consists of organizing the collected data, reducing text and generating categories by finding similar patterns (Bogdan & Biklen 1992). During the analysis, the data gathered through the instruments was compared to find consistencies and differences. After analyzing the data, two categories emerged: The first category is the three "Ws" of interaction (whom, when and where). It received this name because interaction happened among people (who), who changed depending on the environment (where), and occurred in different circumstances and moments (when). The second category includes the factors that influenced interaction in blended learning environments for foreign language learning. It was possible to see aspects that positively or negatively influenced the interaction.

Results

By analyzing the sources of data, it was possible to evidence that Human and Non-human interactions were present in the VLE and face to face settings; however, the degree of the subtypes of Human interaction changed depending on the delivery method (on-line or face to face). There were also other external factors that hindered both interaction and other factors that fostered them. Additionally, a new type of interaction that was not previously discussed appeared. The information was organized into the following categories.

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The Three "Ws" of Human Interaction

In this study, it was necessary to have a sub-division of the types of interaction discussed earlier, specifically human and non-human interaction, because the delivery method (virtual or face-to-face) modified how human interaction occurred. For instance, there was permanent student-student interaction in face-to-face activities, but there was no student-student interaction in the VLE because participants did not have the need to use the VLE for interacting with their classmates. Further, having more contact with the teacher in the VLE encouraged some of the participants to interact with her in both environments.

In the first subcategory, there is an analysis of human interaction for language learning, not only in the VLE but also in face to face settings.

Interacting with students and teacher. Interacting in the foreign language should be one of the main goals for language teachers because languages are for communicating; interaction as mentioned by Brown (1994) is an important part of communication. Nevertheless, by analyzing the sources of data, it was possible to see that there was no student-student interaction for language learning in the VLE. There were no replies to classmates' opinions in forums, nor was there feedback or discussion among students even though there were spaces designed for this kind of interaction. There was no student-student interaction throughout the four proposed forums, and none of the participants wrote a reply to his/her classmates.

When questioning students about the reasons for not using this tool, most of the participants expressed that it was because they did not feel the need to interact in this environment since they were in constant contact with their classmates in the face to face settings. They gathered together in order to develop a specific activity of the class. For instance, for the group activity in the VLE, most of the students looked for specific moments to get together with classmates in order to fulfill the task, as could also be evidenced and registered in the diary. Students discussed and planned the group work to be posted in the VLE:

> *"See you in the library on Thursday at 10 to practice English."³*

> *"Who can practice on Wednesday at 5?⁴*

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³ "Nos vemos el jueves a las 10 en la biblioteca para trabajar lo de inglés."

⁴ "¿Quién puede practicar el miércoles a las 5?"

However, some students did read other classmates' opinions as a basis for their own participation.

> *"...one can see others' opinions in the forum, and it helped me to write my own text, for instance, I did not know what the participation was about, I knew it was a self-presentation but I did not know it was so specific with likes and dislikes. So, one can see the forum of other people and use them as a guide to write mine."[5]*

Student-student interaction is "regarded as essential by many educators and highly desirable by many learners" (Moore, 1989, p. 2). In the classroom, there was student- student interaction in the foreign language. First, there were dialogues which were prepared in advance, which is not acknowledged as interaction by Herazo (2010) who argues that student-student interaction in the EFL class should be spontaneous with no preparation in order to be authentic oral communication. However, these rehearsed dialogues were not the end of the activity because at first, students followed the model and then spontaneity appeared when students asked their classmates questions about a specific topic without previous preparation or talk about unrehearsed topics thanks to the input given in the VLE and in the classroom.

Student-teacher interaction in the foreign language increased in face-to-face settings as well as in the online component. Students were eager to use the language with the teacher, as the following entry of the diary says:

> *"I met some students at the cafeteria and they say hello and try to talk in English, this is something unusual on them"*

This indicates that teacher-student interaction transcended the classroom walls allowing students more opportunities to interact informally with the teacher using the foreign language without fear of making mistakes but with the purpose of expressing an idea. Another example in a face-to-face setting occurred when students were interacting with the biomechanics teacher, they asked for information about the human body, joints and muscles by using simple structures. These interactions were recorded in one of the entries of the diary:

> *"Students were excited to be in the physical therapy lab; they tried to speak in English with the Biomechanics teacher and with the*

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[5] "… en el foro uno puede ver las opiniones y basarse mucho, por ejemplo, yo no sabía bien de que era que se trataba la participación sabía que era la presentación pero no sabía que era tan específica con lo que le gustaba, no le gustaba, entonces uno puede ver los foros de las otras personas entonces es como basarse para uno poder hacer el de uno."

classmates. This is what I could listen:

Student 1: 'what is this?' (Pointing to a skeleton)

Biomechanics teacher: Fibula

Student: write please (the teacher wrote the word on a blackboard)

As can be seen, students used simple language to communicate with their teachers and classmates, and they also reflected on how similar Spanish and English are in technical terminology.

The teacher was not seen as someone who was always transmitting knowledge but as someone who was learning from students too because as students were familiar with the topics and they had some background knowledge, it was easier for them to use the language and there was an exchange of knowledge; one of the entries of the diary says:

"It was fun! Students had to explain to me the differences between the joints and where I can find them; I'm learning too"

The use of the VLE allowed more contact and interaction between teacher and students where distance and time was not a problem, as evidenced below:

Figure 1. Example of student-teacher interaction in the VLE.

In student-teacher interaction, there was no error correction but rather stimuli for the student to provide more information and at the same time use the language for expressing their own perceptions and ideas.

At the beginning of the study, the tracking system made it possible to identify that there was no student-environment interaction. Participants did not read or analyze the information posted in the virtual module. One of the teachers wonder about this as expressed in one of the entries of the diary:

> *Was the language used too complex for the level of students? Were the contents too long or were students not interested on the contents?*

With this reflection it is possible to evidence one new type of interaction which has not been studied yet, and which is called teacher-self interaction, in which she questions herself on the way in which the information was posted in order to have a better understanding of what was happening. In other words, it allowed herself to reflect about her teaching process.

Factors that influenced interaction in blended learning environments for foreign language learning. In the second category, there is an analysis of different factors that influence interaction in the VLE at the university. This is because the use of technology is not a guarantee of a successful learning, nor does it not mean than interaction can be taken for granted in these environments. Sometimes it is taken for granted that students know how to use different technological tools because they are young and belong to the digital generation (Prensky, 2011). However, it is necessary to have in mind that in Colombia there is a digital divide, in which not all people have the same access to technology and consequently, computer literacy is not the same.

As mentioned before, students did not receive any face-to-face introduction to the VLE, which limited their specific knowledge on the use of certain tools and aspects of the VLE. In this study, the unfamiliarity with the Virtual Learning Environment operation influenced interaction because some students did not know how to use and take advantage of the available tools in the VLE for practicing the language. Furthermore, interaction was hindered due to some problems with the server and the instability of the network system. Consequently, a sub-category emerged about an analysis of the factors that influenced interaction positively or negatively.

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Struggling with the VLE and facing technical problem. Students were not only dealing with learning a foreign language; some of them also tried to figure out how to use the VLE and they faced different

technical problems. Interaction between the learner and the interface was an obstacle to having other types of interaction (Hillman, Willis and Gunawardena, 1994). This may be because the lack of knowledge on how to use the VLE affected other types of interaction and also students' performance in the online activities. Their responses show awareness on the need to know how to use the VLE in order to keep up with the class activities:

> *"Hi teacher, I don't know but I would like to have a practice class about the virtual module and the main doubts such as how to follow the content and the activities to be developed ...."* [6]

In several entries of the diary, it was possible to identify some issues related to how the unfamiliarity with the VLE hinders a proper interaction in this kind of environment:

> *"How can students have access to the available material if they do not know how to get it? The explanation in the VLE is really superficial and does not show in deep all the resources it offers to students; we are investing time of the class for showing students how to post a comment in a forum."*

If all students know how to use the VLE, there are equal opportunities for all when using it. This did not happen in this study, and as a result, students who lacked this basic knowledge invested more time that could have be used in the development of activities instead of trying to figure out how to start the work. For example, in one of the virtual artifacts (the forum for uploading the activity), 78% of the participants spent more time asking about how to upload a document than doing the exercise. This is the case of the recording, in which students spent a lot of time in understanding how to record their voice and upload it and some of them did not pay too much attention on the pronunciation as evidenced in the artifacts (recordings). This might not have happened if students knew how to upload the document in advance. On the contrary, 22% of the students used the time to practice pronunciation and repeat it several times as evidenced in the second interview and in the artifacts, when asked about the amount of time they were using for practicing the foreign language in face to face settings and also in the VLE; they said:

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[6] "hola profe no se, pero me encanaria [encantaría]uqe [que] tubierams [tuviéramos] una clae [clase] practica en cuanto a al[al] odulo [modulo] virtual, algunas de las mayores dudas son como seguir con el contenido de las activoades [actividades]...."

"I laughed when I listened to my recording, I did not like it; so I had to record it over and over again." [7]

"...repeating it like for an hour, just tos ay the first part of the text."[8]

These previous examples also show that students were reflecting on their own performances and it enabled student-self interaction because they spent more time to reflecting on the content and their own performance rather than finding a solution to a technical problem.

Because of the technical problems, interaction with the teacher increased. In some cases, this student-teacher interaction was focused on technical issues and problem solving, and this situation empowered the teacher to use English to help students to decipher what the problem was; this interaction took place not only in the VLE but also in face-to-face settings.

"At the end of the class, students asked some questions about the use of certain tools in the VLE and some pronunciation tips."

Some people criticize e-learning for language learning because it does not allow real interaction or a real use of the language. In this research, it was possible to demonstrate how students were using the language for communicating about technical problems and they did it in the foreign language. As Brown (1994) explains, people learn to interact by interacting with others and taking the risk to communicate something in the foreign language because we have a purpose for expressing ourselves, in that moment. In the forums, students were free to exchange opinions in Spanish or English, and some of them gradually started to use the foreign language. They made some mistakes, but the message was understood and it was possible to give a reply. In addition, there was interaction and communication in the foreign language with the teacher in order to solve technical problems. For instance, in the "questions forum" which was designed to solve different students' inquiries, a student wrote:

"hi teacher the activity is very good, is a very good way agreeable and entertained to learn English, but teacher I have a problem, the crossword me does not appear that I doooooooooooooooooooooooooooo? can you help me??? ahhhhhhhhh (so crazy!!!!) Jajajaj thank you good night and take care."

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7   "yo me reía de escucharme, y no me gustaba entonces me tocaba grabar una y otra vez."

8   "…repitiéndolo, como una hora para decir el primer pedacito del texto."

The previous example shows that the student was trying to express herself in English even though she was allowed to write in Spanish. In this case, the interaction is person-to-person, and it was not limited by time or space (Cámara, 2006). The student expressed herself and gave her opinion in the foreign language; she wanted to communicate a message and was free to use English to express what she wanted.

Conclusions

In general terms, it is not only necessary to divide interaction in two main (human and non-human) types and its specific divisions; it is also significant to have subdivisions depending on the environment this takes places because, for example, student-student was evidenced in face-to-face, but it was not observed in the VLE.

The use of the virtual module did not promote any student-student interaction in the VLE among students because students did not feel the need to work in the VLE, and also due to a lack of knowledge of the available tools in the VLE. On the contrary, in the face to face settings, the student-student interaction increased. They looked for different opportunities to use the foreign language in simple sentences to express opinions and ask questions.

Furthermore, the support given by the teacher in the virtual module helped to enhance student-teacher interaction in the VLE, and consequently, students were also willing to interact in the foreign language with the teacher outside the class. It also occurred because it was a stress free environment. The anxiety level decreased because interaction was not directly focused on error correction but on the use of the foreign language for communicative purposes.

The inclusion of the virtual component was time consuming because it was necessary to give a comment to all the students' responses, so that they could feel that they were not alone in their language learning process.

A new type of interaction emerged in human interaction called teacher-self interaction. This is as important as the other types of interaction because the teacher is also reflecting on the teaching process for helping students with their own learning process. Nonhuman interaction was limited due to insufficient computer skills and not enough knowledge on the use of the VLE by some students. It is also required to maintain the face- to-face introduction of how to use the VLE as it used to be in this specific context for helping students better understand the platform and its main tools. However, there is still a

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need to do some changes in the VLE, so that students can have a limit of tries or a limit of time and consequently, the tutor can know more about the students' performance; a different kind of feedback should be given to students in this kind of environment.

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