Abstract
This research analyzes the processes students undergo when writing hypertexts collaboratively. This qualitative case study provides an overall picture of students’ EFL writing through hypertext design. It is a collaborative experience which explores and documents how students deal with grammatical, textual and pragmatic aspects when writing hypertexts. This study draws upon data collected during a semester conducted with engineering students at a university in 2003. Students' hypertexts, audio recordings, students’ reflection logs and an interview were used as main data collection sources. Two main categories emerged as a result of triangulating evidence: “Process of collaborative hypertext writing and negotiation” and “Use of concept mapping and other strategies to overcome difficulties in hypertext writing”.

Key words: Hypertext, negotiation, academic writing, and collaborative writing

Resumen
Esta investigación analiza los procesos por los cuales los estudiantes pasan al escribir hipertextos en conjunto. Este estudio cualitativo de casos provee una fotografía en conjunto de la escritura en EFL a través del diseño de hipertexto. Es una experiencia de colaboración que explora y documenta cómo los estudiantes tratan los aspectos gramaticales, textuales y pragmáticos cuando escriben hipertexto. Este estudio recurre a los datos coleccionado durante un semestre con estudiantes de ingeniería en una universidad en 2003. Los hipertextos de los estudiantes, grabaciones de audio, la reflexión de estudiantes y una entrevista fueron usados como fuentes principales de recolección de datos. Dos categorías principales surgieron al triangular la información: el “Proceso de la escritura hipertextual colaborativa y la negociación” y “El uso de mapas conceptuales y otras estrategias para superar dificultades en la escritura hipertextual.”

Palabras claves: El hipertexto, la negociación, la escritura académica, y la escritura colaborativa.
Introduction

For several years learning English as a foreign language (EFL) has been studied through the observation of communicative skills development. Lately, some research communities have initiated studies that go beyond the exploration of skills and aim to work on areas that can deepen and develop some other skills besides the communicative ones. One of those skills our students need to enhance their learning is the use of the information and communication technologies (ICT). The tools ICT can offer us such as multimedia and hypermedia packages, on line and off line collaborative work can further students’ EFL learning by aiding the teacher’s labor to achieve a more individualized attention to students’ academic needs.

Since technology is studied as another tool to explore the learning of English as a foreign language in our country and other parts of the world, I felt motivated to address issues related to students’ needs in terms of EFL writing and team hypertext design. Therefore, I planned an instructional design in which a new form of writing was proposed to students and a study through which I could explore how students’ EFL writing is built when producing hypertext collaboratively in a university engineering program. In this study I explored and documented how students deal with grammatical, textual and pragmatic aspects when writing hypertexts. Finally, I examined the negotiation process performed while writing hypertexts collaboratively to have a broader view of students’ EFL writing.

In this research study I present a general view of the study which contains the main question, sub questions and objectives that oriented the study. Then, I introduce the literature I reviewed to support this research; among the key constructs reviewed are hypertext, negotiation, academic writing, and collaborative writing. Then, the next aspect has to do with the research design; it involves the type of research, research setting, participants, procedures and instruments. The next section comprises the pedagogical design, which provides a series of activities developed in class related to writing and hypertext construction. Students became familiar with the concepts of hypertext and applied its structure to what they needed to construct, writing on a topic of their interest and following different writing stages. After, I refer to the description of how students built their EFL writing through hypertext design. It shows the data analysis and a description of each of the two categories identified through
triangulation of the data being analyzed. Then, I present findings, conclusions and pedagogical implications.

Theoretical and research background on hypertext and writing

Before starting with the main constructs, I will highlight the role that digital literacy plays in society, and the relevance it has in education today. Pianfetti, (2001) argues for a more prominent place for technology in professional programs for teachers. Some of the features identified in her discussion are administrative support, time for teachers to learn new skills, explorations of the ways in which those technology skills may be integrated in their curriculum, access to up-to-date resources, and the development of a community of teachers working with technology. In brief, digital literacy will prevail when teachers address pedagogical changes that may be necessary with the implementation of technology in the classroom and this final idea invites me to introduce a pedagogical experience integrating hypertext design and EFL writing so my students and I will get the benefit of dealing with this electronic age that demands proficiency in utilizing information in a nonlinear format, Glister, (1997) as cited by Pianfetti, (2001) this format has to do with the main construct of this research study which is hypertext.

Hypertext

Hypertext is the ability to link any place in text stored in a computer with any other place in the same or different texts that permit rapid access through buttons and other tools across nonlinear pathways. Hypertext was first suggested by Vannevar Bush in 1945, He is considered the inventor of the concept and Theodor Nelson was the first who used this term in 1965 as cited by Horn, R. (1989), today the most famous implementation of hypertext is the World Wide Web.

Henao Alvarez, (2001) states some features of an electronic text which influence the behavior that a hypertext has with the electronic version of text. The electronic text can be interactive and satisfies specific requirements of a reader. The design of an electronic text can incorporate media that guide the reader in his exploration, promoting and encouraging in this way reading. The structure of an electronic text lets the reader the search of multiple nodes of
complementary information and has access to various multimedia resources (audio, video, animation, photos). The hypertext comes up as a new text whose structure has access to a huge volume of information. Great advances of storing information made easy the digitalization and storing of graphs, audio and video and there is a beginning of creating and designing reading and learning material in hypermedia format, as stated by Goldman, 1996.

Some other hypertext features are focused on rapid browsing; here the user must be able to get around in the hypertext quickly and easily, this means that the user interface must enable the user to navigate across the links in the system, usually with a couple of clicks of a mouse. Another feature is focused on non-linear discourse; information that is non-linearly structured. It refers to the non-linear structure of the text and non-symmetrical organization by Horn, R. (1989).

Referring to the previous feature of hypertext as a nonlinear text, Gillingham, M. G. et al (1994), explored the meaning of text from different viewpoints of teachers and text scholars. Teachers in the same building with the same years of experience can have different notions about using text in their classrooms. In this study an experience of a teacher is shown as an example to introduce nonlinear texts in class. This teacher suggested her students to split up and check their ideas on a way to determine the amount of pollution in a local stream using various textual resources. She had some notions of nonlinear texts; she was open to various nonlinear texts and invited her students to find out information everywhere. She encouraged her students to be interested in webs of information by using nonlinear hypermedia or what the authors call in this article nonlinear text. Nonlinear text represents a web of connected knowledge similar to the distributed knowledge, knowledge stored “out in the environment” (Page 202), in books, computers, other people and many varied sources. Her students became more fluent in using web information available in the real world (i.e., in her classroom, school building, and beyond the boundaries of the school). Authors discovered that teachers have a common-sense definition of text that does not include many formal components and that they see nonlinear text as something different form other texts. They wonder if increased effort in the form of writing to nonlinear text might lead to better readers of and thinkers with nonlinear text and I found this idea relevant because it is necessary to get engaged in this type of projects so that teachers will see if they obtain benefits or not from similar experiences dealing with creation of nonlinear texts.
Landow (1992) sees personal textual construction as a major component in his definition of nonlinear text. Landow’s English students may respond to texts in marginal notes, references, even complete other texts. Although this is possible with paper-based texts, a big difference with in computer-based nonlinear text is that others may immediately see the newly created text and, in turn, comment on it.

Another experience that reinforces the understanding of nonlinear texts or hypermedia texts as it is called by Henao-Alvarez, O. (2001) was to identify main ideas and details in hypermedia texts and printed texts. His study showed that a text in hypermedia format used in his experiment presents coded information in different media-audio, pictures, photos, videos and this theory is valid for the findings of his study. The results showed that the group that read the hypermedia version had a better performance in the task of identifying main ideas and details than the group that read the printed version with the same task. Henao remarks that the ability to identify main ideas in a text is considered as a fundamental skill for reading comprehension and thus the hypermedia text can spread out this capability with effectiveness. This experience is very convenient to incorporate in the school work and to understand that teachers and students need to be familiar with hypermedia environments, structure and functioning.

After checking the main feature of hypertext that is nonlinearity it is necessary to look at its structure whose basis is concept mapping.

**Importance of concept mapping**

One of the most important features of a hypertext is its structure. When dealing with hypertext design, it is necessary to refer to concept map design. In education, concept map design is a tool for research, a communication tool and an efficient means of teaching and learning (Liu and Pedersen, 1998); it is notably a process of establishing relationship between concepts. The paper introduced by the authors just mentioned introduces a literature review of concept maps and concept mapping. They say that an overall idea emerges: on the one hand, concept maps are useful tools for designers, to structure their products, but, on the other hand, ready-made concept maps might not be so useful for learning. For the learner, the process of creating and/or modifying concept maps seems to be much better. Evidence is collected from different
studies about advanced organisers and about hypertext design and uses for learning. According to these results, computer-based concept mapping tools provide very interesting possibilities.

Concept maps are interesting in that they can be considered from different points of view. One of those views refers to accessing representations, useful way to gain access to the representations of learners, and to assess whether their learning is influenced by prior knowledge. Another view is that concept maps are communicational tools. Graphics can represent information in a way that sometimes may be more appropriate to communicating both contents and an idea about the complexity of content. Concept maps are not limited by linearity and are convenient to represent what can be complex and intricate. Furthermore, they allow collaborative construction of knowledge. This interpretation of the authors contributes to the main role that concept maps play in this study.

Rada (1990) considers a semantic network as a graph where natural language terms have been used to label the nodes and links. In a semantic network concepts are represented by terms and their relationships to other terms in the network. For example, to place the concept ‘hypertext’ in a semantic net, one might begin by saying that it contains documents, runs on computers, and serves users. The link types are ‘contains’, ‘runs on’, and ‘serves’; the nodes are ‘hypertext’, ‘documents’, ‘computers’, and ‘users’. A semantic net is a synonym of concept map because they share the same characteristics which are the fundamental hypertext structure that represent knowledge construction.

Using technology as cognitive tools

The application of technologies primarily computers as cognitive learning tools, paper written by Jonassen (1991) is worthy mentioning in this study. These tools are for knowledge construction rather than media of conveyance of knowledge acquisition. With cognitive tools, the traditional design and development processes are eliminated. The purpose is to give learners the function of designers using the technology as tools for analyzing the world, accessing information, interpreting and organizing their personal knowledge, and representing what they know to others. Numerous reasons of using technology as cognitive tools among them are encouraging learners as
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designers, learners as thinkers, working with knowledge construction not reproduction, encouraging reflective thinking, relying on the learner to provide the intelligence not the computer, distributing cognitive processing. I found this paper of great importance because it is true that these cognitive tools empower learners to think more meaningfully and invite them to assume ownership of their knowledge rather than reproducing the teacher’s.

The new information technologies make hypertext an important application. Rada (1990) considers hypertext an important application. A hypertext system extends text along several dimensions. From the perspective of the writer, the old word processor is transformed into a writer’s workbench that supports the organizing of thoughts into networks and of networks into prose. From the reader’s perspective, a hypertext system gives explicit access to the semantic network that underlies a document. A high-resolution screen supports the graphics of a document and allows different parts of a document to be viewed at the same item. Many writers or readers may simultaneously manipulate one or more documents, and thus a hypertext system provides connections among people, among documents, and between people and documents. Finally, hypertext applies to more than the traditional document - not only papers and letters but software and knowledge-bases can be developed and accessed with hypertext techniques.

Construction of hyperstories

Some other potentialities of hypertext are exemplified in the exploratory study done by Clavijo and Quintana, (2003). Their purpose was to share an experience of teacher education and research with Colombian teachers of English using hypertext as a strategy to promote creative writing in Spanish and English. This exploratory study was part of the interdisciplinary work developed with graduate students of the Masters program in Applied Linguistics in the seminar on Applications of Hypermedia. Teacher researchers who participated in this seminar implemented this writing strategy with their students in elementary, secondary and higher education programs. Authors want to contribute with new pedagogical ideas to teachers of different levels of education and want to invite them to implement strategies that use hypertext and hypermedia as tools which broaden up the field of producing text in different ways. They invite teachers to be in contact with the latest sources for Information and
Communication Technologies (ICT). They also suggest that teachers need to find new ways of perceiving reading and writing practices.

Clavijo & Quintana, (2004) in their book called “Maestros y estudiantes escritores de hiperhistorias” remarked that one of the hypertext features experienced by students was the breaking of linearity of a text introducing multiple options to narrate stories, which I consider worth connecting with my study since my students also consider multilinearity in their hypertexts; this feature gave them tools to construct different routes and a variety of ways to explore and approach their hypertexts. Apart from the previous aspect, Clavijo and Quintana mentioned that different degrees of autonomy were present in the development of their proposal since the teachers they worked with implemented their hyper stories development with children, teenagers and adults. The authors also pointed out that diagrams or map designs are organizational strategies of texts that contribute to the construction of coherent stories.

The process of reading hypertexts

Lugo, (2005), found in her research that, reading hypertexts is a different experience, not a new way of reading. The reader constructs the meaning from his or her previous knowledge, which is why, when reading hypertexts, the act of reading in itself doesn’t change, it is the support and presentation of the text what originate new ways to access and to face information. This study states that we must not oppose the reading of printed texts in favour of hypertexts, as the apparition of a new technology does not imply the disappearance or the substitution of previous technologies. We think that the change will be gradual and that both mediums will coexist in a parallel way for many years. Reading on the Internet implies a new and specific way of selecting information that becomes more or less successful depending on the position and the attitude and specificity of the reader’s objectives. Besides, the capability to maintain control of their searches, on the capability to use previous knowledge to choose between all available alternatives that the system offers, as well as the amount of experience that the reader has with the medium, the knowledge of its structure and the strategies applied to regulate the process.

Collaborative Writing

In relation to ESL writing instruction, the study made by Hirvela (1999), who describes an approach to collaborative writing that combines Carson
and Nelson’s idea about collaborative writing (1996) in which students form cooperative groups that interpret and respond to texts to produce collectively rather than individually readings and compositions through an ongoing, dynamic process of discussion and negotiation that takes full advantage of the collaborative approach to learning. Most importantly perhaps, Hirvela (1999) points out that students that work in pairs or groups have the opportunity to learn from each other as they work together to complete a project. “Through collaborative group production, students experience valuable opportunities to improve their ability to read and write because the ongoing community orientation of this approach enables them to draw upon the strengths and resources of their peers while sorting through their own growing knowledge of L2 reading and writing” (p. 12). I found this study illustrates the dynamics of writing with others and enriches this experience developed through hypertexts.

Regarding collaborative writing, Hirvela (1999) also mentioned another study done by Diane Belcher (1990), who pointed out that collaborative writing groups constitute genuine reading audiences for each of the writers within a group, with writers then writing with the needs and characteristics of that audience in mind as they compose and revise texts. By engaging in this more direct social process of writing, students experience increased opportunities to review and apply their growing knowledge of second language (L2) writing through dialogue and interaction with their peers in the writing group. This dynamics could facilitate the exploration of writing strategies inside and outside the classroom. However, students need to have certain training in group critiques; otherwise the experience becomes uncomfortable for everyone.

Hirvela (1999) also cited Bruffee (1980), who points out that “the basic idea of collaborative learning is that we gain certain kinds of knowledge best through a process of communication with our peers”. In his view, this is mainly because collaborative learning situations enable learners to make appropriate judgements learned through a process of discussion and negotiation, which, at the same time, allows them to understand what they have learned and how to use it effectively.

Process Writing

Since I focused this study on process writing, I refer now to White and Arndt (1991) in their “Process Writing book” which orients students in the creative
process of writing. This enabling approach involves a collaborative effort between teacher and students, breaking down classrooms barriers and engaging both parties as writers and critical readers. Their book focuses on teaching and facilitating the development of good writing practices, instructing students about the characteristics of a good piece of writing. I consider this book of valuable interest due to the fact that it introduces many good writing and learning practices.

Those writing practices pointed by White and Arndt are represented in a diagram which are brainstorming, focusing, drafting, feedback, which offer teachers a framework that tries to capture the recursive, not linear nature of writing. Activities to generate ideas (e.g. brainstorming) help writers tap their long-term memory and answer the question, ‘what can I say on this topic?’ Focusing (e.g. fast writing) deals with ‘what is my overall purpose in writing this?’. Structuring is organizing and reorganizing a text to answer the question: ‘how can I present these ideas in a way that is acceptable to my reader?’ Activities include experimenting with different types of text, having read examples. Drafting is the transition from writer-based thought into reader-based text. Multiple drafts are produced, each influenced by feedback from teacher and/or peers. Activities such as reformulation and the use of checklists in guiding feedback develop essential evaluating skills. Feedback focuses initially on content and organization. When these are satisfactory, comment on language is given on penultimate drafts for final amendment. Re-viewing is standing back from the text and looking at it with fresh eyes, asking ‘Is it right?’ The overall aim is to create meaningful, purposeful writing tasks that develop the writer’s skills over several drafts. Collaboration between learners and with teachers is essential. I chose the stages of brainstorming, drafting, revision and final edition to guide the writing process in this study; because those stages seem to approach what students need to work on when referring to the improvement of their writing skills.

For the pedagogical design of this study the previous four stages were considered in the writing process for instance brainstorming, drafting, revision, and final edition presented in the book “Process Writing” by Ron White and Valerie Arndt (1991) and the book “Academic English” by Oshima and Hogue (1999). In the brainstorming stage students are required to generate ideas by listing ideas or concepts that are related to the topic of interest and organize an outline that is going to summarize the principal ideas to be explored in
the paragraph or piece of writing. The next stage is to initiate with drafting, students are required to write a rough draft from the outline produced in the previous stage. After that rough draft, the next step is to revise it; some things could be changed in order to improve the piece of writing. It is necessary “to check it over for the content and organization including unity, coherence and organization” (Oshima and Hogue, 1999). And the final edition takes into account the observations made in the previous stages to achieve a neat final writing in all senses, form and content. It is important to consider that writing, takes time and practice to be developed. It is relevant to highlight that writing is a process that is never complete, that is possible to review and revise and review and revise again. Next I introduce some text books and studies that are going to support this writing process approach, central to this research study.

Process writing is included in team writing as introduced by Perez-Prado, (2003), in her study she highlights certain characteristics that distinguish team activities from other writing activities practiced in many foreign language classrooms among them are collaboration and collaboration among learners, the use of the four language skills if possible during each activity, peer editing, and reviewing process and publication or display of team written products. The previous stages promote the idea that the process of writing can be a team effort. This idea of team building for writing and interaction is beneficial in that it creates a sense of community that can lead to a friendship building among learners. I found this study relevant to connect with my research because I shared most of the characteristics presented except the use of the four languages skill since the pedagogical design only focuses on writing.

In order to gather some other information in relation to the fundamental basis that will support this study I decided to include some of the ideas pointed by Melina Porto (2001). Some of her ideas illuminate my research, for example, the way the author approached her beliefs about writing pedagogy. Different aspects of writing such as audience, purpose, time pressure and feedback, and their implications for the classroom are inspected in this study. Her proposal on cooperative writing response groups and self-evaluation reveal at certain point some of the possible strategies that can be implemented inside and outside the classroom to continue practicing writing. Cooperative writing response groups synthesize product and process, and thus capture the complexity of writing. The written reflections her learners produced as feedback to testify to the success
of this approach in developing their writing skills by promoting awareness of the writing process in the classroom; these are some of the findings that are relevant to keep in mind in my study.

Summing up, some features of process writing which enlighten the pedagogical design of this study, plus the value of collaborative writing which orients how to construct a product in group, added to hypertext design which introduces the basis to structure and developing writing linked to technology. Finally, negotiation is also relevant to study since it provides us with information about the dynamics of constructing a hypertext in group.

**Negotiation**

The view of the terms ‘process’ and ‘negotiation’ has emerged in the area of classroom pedagogy. In this, “process” has been defined as taking students through various stages in producing language, most notably in the area of academic writing where students are encouraged to collect ideas, draft, redraft, seek feedback and negotiate with peers and with “the reader” to accomplish a successful text. Recent innovations in classroom practice have emphasised the value of collaborative learning, learner-centeredness, autonomy and shared decision-making in the classroom. The motivation for developments in this area has come from many sources and this is a desire to create forms of classroom interaction which give voice to students in the management of their learning. Now is the time to make explicit the typically ‘hidden’ views of students, the intention is to arrive at more effective, efficient and democratic modes of classroom work. Therefore, negotiation refers to discussion between all members of the classroom to decide how learning and teaching are to be organised as stated by Breen and Littlejohn (2000).

Breen and Littlejohn (2000) stated three forms of negotiation that could be related to the results of this study. Students engaged in personal negotiation as a psychological process in order to understand texts / sources of information to start constructing their hypertexts. Once they knew what to do, they were involved in interactive negotiation which let them share, check, and clarify meaning about the writing task: i.e., in this case, their hypertext construction to conclude with the procedural negotiation which described their reaching agreement on decisions that contributed to improvement and socialize students’ hypertext production as the main project carried out during the semester. The following figure represents the most representative
As stated by Breen and Littlejohn (2000), negotiation should be discussed among all members of the classroom to decide how learning and teaching are to be organised. Students’ voices need to be heard to arrive at more effective, efficient and democratic modes of classroom work.

Negotiation in the classroom leads the following principles stated by Breen and Littlejohn (2000): Responsibility among members of the classroom community (each group was in charge of their own hypertext during the whole process); construction and reflection of learning as an emancipatory process (students learnt and taught each other their new experience); activation of social and cultural resources of the classroom group (they were resourceful and took advantage of their skills); being active agents in learning (they were committed to their task); enrichment of classroom discourse as a resource for language learning (they used and enriched their language production); information and extension of teacher’s pedagogic strategies (teacher will socialize her experience with other colleagues).

Research design

The case study presented here is aimed at understanding the meaning of an experience on how a particular group of students make sense of their writing practice through hypertext design. According to Merriam (1988) a qualitative case study is “an intensive, holistic description and analysis of a single instance, phenomenon, or social unit” (p.9). This method provided me with a rich view of the data collected in order to interpret and reflect about my students’ writing process through hypertext design and its dimension in collaborative work.

The analysis of this study is based on a grounded approach; this approach invites the researcher to read several times the data to notice similar themes or patterns (Freeman, 1998). I wanted to analyze the data and identify the categories that emerged from that analysis.

Research Setting and Participants

For this research study it was necessary to establish a contact between the Language Department and the Engineering program at Pontificia Universidad Javeriana. Students who participated in this study belonged to different Engineering programs such as computer science, industrial, electronics and
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civil Engineering. I was assigned to teach an intermediate English course and I proposed my students to develop EFL writing through hypertext; this fact broadened up current practices of English courses. Once the group accepted working under these circumstances, the flow of the regular English program needed to be suited to the implementation of this proposal along the semester.

Nine Participants, two girls and seven boys whose ages range from 18 to 22, took part in this case study; I did not have to choose the participants of this study because all of them were in the class that I was assigned to teach during the second semester of 2003. Students belonged to three different engineering programs and had an intermediate level of English. All teaching processes required empathy; so discussion and negotiation show the dynamics of the class for the second semester of 2003. I proposed a pedagogical design to students which included them thinking of a topic of interest and later on students would write a hypertext about it. I also proposed them to work in groups and they chose who to work with to write their hypertext during this semester.

Procedures and Instruments

In agreement with the proposed methodology, data was gathered and analyzed in a qualitative way. Patton, as cited in Merriam (1988), states that “qualitative data consist of detailed descriptions of situations, events, people, interactions and observed behaviours, experiences, attitudes, beliefs and thoughts and excerpts or entire passages from documents, correspondence, records and case histories” (p.23). The information collected for this study was taken from various sources to handle this variety of perspectives on interpretation to minimize bias in findings and thus to increase the reliability of outcomes.

The first instrument to collect data was the audio recording (see appendix 1), which provided objective records of what occurred and information that can be re-examined (Freeman, 1998). This instrument was used to describe learning experiences with hypertexts and capture key features in learning events during their hypertext construction. The second instrument was students’ reflection logs (see appendix 2) which are related to more objective notes on students’ events, (Freeman 1998). The purpose of this instrument was to gather information in order to identify perceptions and procedures students have about their writing process and their collaborative work.
The third instrument was individual interviews which are “structured oral or possibly written exchanges with someone” quoted by Patton (1990), as cited in Freeman (1998) (see appendix 3). It also provides information about students’ perceptions of their writing process; it is a complementary form of data collection useful for expanding and interpreting students’ point of view immersed during the process of hypertext construction collaboratively. There are two basic types of research interviews: unstructured or open-ended, and structured. The former allows participants more flexible in guiding the exchange, while the latter generally follow a predetermined set of questions” and quoted by Patton 1990, as cited in Freeman (1998).

The fourth instrument used in this study was students’ hypertexts, (see appendix 4). They provide information of students’ drafts and final hypertexts versions. They revealed some improvement in the process and final product of students’ hypertexts.

**Pedagogical design**

This instructional design focuses on how students build their EFL writing through hypertext design. Students become familiar with the concepts of hypertext and apply its structure to what they need to construct, writing on a topic of their interest and following different writing stages.

**Objectives**

- Students recognize and apply principles of hypertext design through hypertext projects.
- Students write their hypertext projects based on their topic of interest in team work.
- Students reflect upon and evaluate their own projects under a process writing approach through collaborative work.

**Philosophy: Critical pedagogy**

This philosophy of education invites us to reflect critically to act. Therefore our role as teacher researchers must guide our work in such direction. We need to become acquainted with teaching and learning of the twenty first century. In other words, this pedagogy needs to meet the needs of teaching and learning. As a point of reference, critical pedagogy has its roots in the critical theory of
the Frankfurt School, whose influence is evident in the emancipatory works of Paulo Freire, the most renowned critical educator.

Our practices have to reflect various components of critical reflection, active and engaged investigation, assuming new roles and new practices. This is not an easy task, but it takes time to adapt and adopt new readings of the world. We need to systematize our work, analyzing everyday actions; therefore consistency and organization are the clues to carry out this type of job.

Diversity is another component of critical pedagogy that offers us a multicultural view of exploring new practices addressing needs of each community. It is necessary to listen to our students’ voices; they also provide us with some learning and enriching experiences. We need to be open to change, taking into account that change has different dimensions. But what is important here is to link change to transformation.

This type of transformation makes us reflect upon the way we design lessons and being able to adapt to fulfill students’ needs is what counts in this type of approach, therefore, critical pedagogy looks for reconfiguring the traditional student/teacher relationship which places the teacher as an active agent, the teacher as knower/possessor of knowledge and students as the passive recipients of the teacher’s knowledge. Instead, the classroom needs to turn into a site where new knowledge, grounded in the experiences of students and teachers alike, is produced through meaningful dialogue. We need to be self motivated, updated and feeling like doing something to address issues that satisfy the educational community in general. We students and teachers need to discover our own way of learning and unlearning new things because nothing is established for ever.

**Teacher’s role**

Critical pedagogy helps to construct new roles. The teacher functions more as a facilitator who coaches, mediates, and helps students develop and assess their understanding, and thereby their learning. One of the teacher’s biggest jobs is to become an agent of change through collaborative work. It leads us to be risk takers in trying new ways of learning going deeper into our students’ needs and interests.

**Student’s role**

Critical pedagogy invites to prepare learners who are responsible for their own learning and understand that it comes from their lived experiences. Critical
pedagogy searches for learners who can generate new knowledge and apply it in unknown ways. Students learn more when they are actively involved rather than passive listeners.

Many of the principles of critical pedagogy are based on a constructivist approach of education. Some of the most important constructivists and their most representative authors were Paulo Freire, John Dewey and Lev Vygotsky. Paulo Freire (1921-1997), who wrote Pedagogy of the Oppressed (1970), which contains his famous critique of the “banking concept of education” (education that revolves around the actions of teachers who “deposit” knowledge into their passive students), John Dewey (1859-1952), considered the founder of “progressive” education and constructivist educational theory in the United States, rejected teaching practices that positioned students as passive receptacles, advocating instead for a pedagogical approach that involved students’ active engagement with each other and with the world. Lev Vygotsky (1896 - 1934), Vygotsky conception of the “zone of proximal development” suggests that social interaction plays a fundamental role in the development of cognition and has thus been embraced by constructivist educators who believe that real learning takes place in social situations that involve exchanges between learners.

Thus, we can discover big potentialities if we let our students write and rewrite their world from a pluralistic perspective, students can pose problems and solve problems with technology that stretches beyond our wildest thought. Sometimes we are afraid of change and we do not take the risk of new learning and teaching experiences.

**Methodology**

This pedagogical design is a reflection of a constructivist practice; this is the case of collaborative learning, where students learn through meaningful interaction with their peers rather than solely with the teacher. In this design I kept in mind some of the principles of critical pedagogy which supported this study.

Initially, as one of the principles of critical pedagogy states “students work primarily in groups”, in this pedagogical design participated nine students divided in 4 groups, who, at the beginning became familiar with hypertext
structure, components and designs. I used materials that were created by my previous students and are commercially available, a good example of another principle which invites to use primary sources of material and manipulative materials. Then, students were asked to select a topic of their interest they wanted to write their hypertext about; at this point, it is remarkable to value students’ questions and interests since they were the main writers of their hypertext.

Previous knowledge about the topic was considered as a confirmation of another principle which states that learning is interactive, building on what the student already knows. Students could also complement this knowledge with information they read and found out through discussion in group. Then students were asked to integrate all that information into the design of a concept map, as part of the brainstorming stage that supports writing process. Later, students started writing their first drafts based on their concept maps previously constructed as a consolidation of the drafting stage. After that, the revision stage was implemented; I was involved actively in this stage. This is part of another principle of the critical pedagogy that refers to teachers having a dialogue with students, helping students construct their own knowledge.

Finally, students incorporated observations made in the revision stage to produce a final version of their hypertext. Some of them chose power point; others preferred front page (this is a program used to design web pages) to present their final work. This experience shows that process is as important as product. Students were invited to construct their own hypertext and to socialize it at the end of their academic period. This dynamics shows that knowledge is seen as an ever changing experience.

Now follows a sample of one of the sessions carried out.

**Warm-up** Brainstorm concepts or ideas about each session.

A. Teacher’s presentation, power point presentations about main features of a hypertext and hand outs.

B. The class interacted with the teacher asking questions to clarify doubts.

C. In groups, students developed certain completion exercises, multiple choice exercises or reflection exercises about the topics exposed in every session.
D. Students were given time to start working on their particular hypertext project depending on the work session.

E. Class was concluded with a particular assignment for every session.

Resources

Teacher produced Power Point presentations about main features of a hypertext and handouts with practical information, such as completion exercises and/or open questions related to every session. Students required the use of magazines, newspapers, articles, information downloaded from the Internet, etc.

Topics and schedule

Students revised different power point presentations which covered information about the kind of project they were going to build.

<table>
<thead>
<tr>
<th>WEEK</th>
<th>TOPIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Students become familiar with Hypertext features</td>
</tr>
<tr>
<td>2</td>
<td>Students analyze Hypertext applications</td>
</tr>
<tr>
<td>3</td>
<td>Students search information about topic of interest and design a concept map</td>
</tr>
<tr>
<td>4</td>
<td>Students become familiar with writing process stages</td>
</tr>
<tr>
<td>5</td>
<td>Students start writing their hypertext in class</td>
</tr>
<tr>
<td>6</td>
<td>Students continue with hypertext writing in class</td>
</tr>
<tr>
<td>7</td>
<td>Students start designing their projects in Power Point and create their navigation map</td>
</tr>
<tr>
<td>8</td>
<td>Students continue with their hypertext design in the computer</td>
</tr>
<tr>
<td>9</td>
<td>Students work on final edition</td>
</tr>
<tr>
<td>10</td>
<td>Students do final presentation</td>
</tr>
</tbody>
</table>

Assessment

Three types of assessment were carried out: self assessment, peer assessment and teacher assessment. Students and teacher negotiated the evaluation criteria.

Extra activities

Depending on every session, teacher provided students with some activities or hand outs that helped students overcome their difficulties in relation to their hypertext project. Sometimes students were given some extra material
on how to design a concept map and navigation map, or some aspects to keep in mind when writing their hypertext. Students that already knew how to work with hypertext explored some extra material that would help with their hypertext presentation.

**Discussion of findings**

This section describes the two main categories that were identified from the data analysis of the study: the first category was named “Process of collaborative hypertext writing and negotiation.” It embraces how students approach hypertext writing task and how students deal with group work. And the second category, named “Use of concept mapping and other strategies to overcome difficulties in hypertext writing,” makes reference to how students made use of the strategy proposed by the teacher in order to construct their hypertext and their own strategies they used to handle difficulties in their hypertext writing.

**Process of collaborative hypertext writing and negotiation**

To tackle the process observed during collaborative hypertext writing, I identified the following subcategories: **A. Understanding and using key features of collaborative hypertext writing** and **B. Working together to understand texts, approaching writing tasks and dealing with group work,** which are closely related to negotiation.

Two types of features are involved when dealing with the first part of the process that addresses the understanding and the use of key features of collaborative hypertext writing, on one hand, features of hypertext writing and on the other hand features of collaborative writing are represented in the chart below.
A. Understanding and Using Key Features of Collaborative Hypertext Writing

<table>
<thead>
<tr>
<th>1. Features of Hypertext Writing</th>
<th>2. Features of Collaborative Writing</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Concept mapping illustration of hypertext structure.</td>
<td>a. Construction of hypertexts in group by negotiating key points.</td>
</tr>
<tr>
<td>b. Comprehension of the importance of following a concept map.</td>
<td>b. Exchange of background knowledge about writing.</td>
</tr>
<tr>
<td>c. Consideration of nonlinearity features of hypertext writing.</td>
<td></td>
</tr>
<tr>
<td>d. Reflection upon the most important concepts on the topic chosen.</td>
<td></td>
</tr>
<tr>
<td>e. Value of hierarchical organization of concepts in hypertext.</td>
<td></td>
</tr>
</tbody>
</table>

Students experienced a process of collaborative hypertext writing and negotiation simultaneously. The evidences found in the process of collaborative writing show that students understood and used key features of hypertext writing.

Features of hypertext writing

Students’ awareness of some features of collaborative hypertext writing made the development of this research study possible. Among those features we have: understanding of concept mapping as the main structure of a hypertext, consideration of nonlinearity features of hypertext writing let the reader find different ways of approaching the text. Some other features showed how students understood and recognized the importance of following a concept map, and how hierarchical organization helped them to improve knowledge structure about the topic they chose to develop their hypertext collaboratively; Hirvela (1999) mentioned that collaborative group production enables students to draw upon strengths and resources of their peers while sorting out their own growing knowledge of L2 reading and writing; somehow, this experience has given me an idea on how rich this dynamics is when constructing hypertexts with others especially when there is a chance of motivating students to write about topics that are really of interest for them and for any other audiences.
a. Concept mapping illustration of hypertext structure.

This is the first feature of hypertext writing. Hypertext structure is based on concept mapping where knowledge is represented hierarchically; this feature has different levels of importance exemplified by concepts or groups of concepts which are connected through linking words that together generate propositions of knowledge. In this study students were given a series of steps to construct their concept maps to start designing their hypertexts. The following is an example of concept maps made by students: Colombian recipes.

**Important of Following a Concept Map**

The importance of following a concept map is another remarkable feature in hypertext writing since this is the main structure of hypertext. Each concept map lets students organize their knowledge and ideas of their topic of interest to start constructing each hypertext. Students started developing their EFL writing having as a reference their concept map. The following examples correspond to the initial writing stage in which they were following a concept map. Students used it as guide to write their drafts:

34 S1 María Eugenia, me puedes prestar el mapa conceptual
35 S2 ¿Para qué?
36 S1 Porque no sé qué va dentro de fat free food, desserts, no sé,
Exploring students’ EFL writing through hypertext design

Other students used their map to remember key concepts and their organization to orient them in their writing practice:

95  S7  Está saliendo bastante.
96  S6  Sabes, que debías hacer un hojeadita en tu agenda y miramos el mapa [conceptual]
97  S6  Y miramos a ver.
98  S7  Sacamos uno por zona…

T: Las características del hipertexto ¿Cómo se ven reflejadas en el trabajo que están haciendo?

S3: Eso lo que yo te decía, en un principio el mapa no nos costó un gran trabajo porque desde un principio se está realizando entonces obviamente teníamos que mirar y mirar y cuando se hizo el mapa pues era uno ya más particularmente más real de lo que iba a ser.

Other students wanted to verify if they were following an established structure that facilitated their writing work:

337  S7  ¿Dónde está el mapa conceptual?
338  S6  Tenemos ubicación, extensión, pues el mapa, pues ya
339  S7  No pues aquí está la extensión.
340  S6  No pues el mapa [conceptual], ya lo tenemos pero bien…

Nonlinearity features of hypertext writing

Consideration of nonlinearity lets the user explore the hypertext through different paths, extending the experience of accessing texts in a nontraditional and nonlinear way. Nonlinearity lets the reader find different ways of exploring or approaching the hypertext. Landow (1992) sees nonlinearity of hypertext
overturning the traditional rhetorical structures and notions of textuality. In other words, a hypertext is fluid, nonlinear; it is a net of concepts (group of words) that go together connected or related in different ways so that the user or reader can explore the hypertext following different paths, beginning and ending at different spots. Next example evidences this fact.

175 S3: Y faltaría hacer un link acá que diga Italy, ¿me entiende?
176 S4: ¿Ahí?
177 S3: Ah pues si la gente quiere ir a Italia, quiere ir a no se qué, ¿me entiende?
   Acuérdese que no puede ser plano; entonces acá go to y lo podemos hacer como link para que se guíe.
178 S4: Entonces mira history Valencia, football club
(A2A-175-177 Aug 29-S3-S4)

Nonlinearity of hypertext is also important in the writing process because it is an activity that can be enriched from different views (sources/texts, students’ knowledge, technology) as stated by Gillingham, M. G. et al (1994) who explored the meaning of text from different viewpoints of teachers and text scholars, in a study they carried out one group of students became more fluent in using web information available in the real world (i.e., in her classroom, school building, and beyond the boundaries of the school). and academic and social construction through the interaction with others. This is beneficial for the community and gives a sense of friendship building among learners.

Reflection upon the most important concepts on the topic chosen

This reflection made students have in mind their concept map to center their writing on the main concepts of their topic of interest. This shows that concept maps were very useful. For the group that dealt with European soccer teams, the concepts of “city and stadium” were of great importance because these concepts structured their hypertext construction.

263 S3: El Milán tiene bueno ciudad Milán. Ah ponga estadio, ¡ay! Se nos había olvidado eso. Estadios, Barcelona, no
264 S4: Acuérdate que estamos en Milán
(A2A-263-264 Aug 29-S3-S4)
Exploring students’ EFL writing through hypertext design

**Value of hierarchical organization of concepts in hypertext**

This outlier is the understanding students had in terms of hierarchies or organization of the concepts displayed in their concept map. It is important to notice that hierarchies help students to structure knowledge; therefore students valued the new knowledge provided by the experience of constructing hypertexts. An example of this feature is as follows.

S7: We made an activity of concept map, according to the topic of the group and define the hierarchy of the hypertext work.

(SL0-Aug 22- S7- Q1)

The hierarchical organization facilitates the organization of ideas, concepts, and knowledge. This organization does not follow a fixed sequence; it is framed according to the level of importance, which in turn helps to improve the way of exploring the hypertext.

T: Y ustedes como autores del hipertexto ¿Qué aprendieron de esa experiencia?

S5: Que es como mucho más fácil de organizar las ideas, porque uno no se basa en que, como la persona tiene que ir en un orden y entonces si no entiende tiene que volver, no porque la persona decide si lo quiere ver y sino entendió se devuelve a otro, el que quiera, y sigue con otro tema

(C-S5-Oct 31-Q4)

**Features of collaborative writing**

**Construction of Hypertexts in Group by Negotiating Key Points**

This feature of collaborative writing represents the main dynamics of this study: construction of hypertext in group by negotiating key points. The coming examples show how students construct their hypertext together. In this first excerpt, we can observe that students write collaboratively developing their own ideas to create their first drafts:

T: El trabajo de negociación, de escritura de investigación

S6: Como fue llegando se fue dando, había cosas que a mí me parecían pero que a él no. Primero empezamos como a argumentar por qué sí y por qué no las cosas, por ejemplo
al principio queríamos poner todos los párrafos, pero habían hartísimos párrafos bueno entonces fuimos negociando y dejando los más importantes, bueno entonces vamos a hacerlo ahora por regiones, entonces ahí como que fue una experiencia así.

(I-S6-Oct 31-Q7)

The following excerpts show the importance of collaboration since students constructed their ideas in the foreign language together, and let their ideas flow, mainly helping each other in terms of unknown vocabulary and asking for it.

<table>
<thead>
<tr>
<th>S1</th>
<th>S2</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is, Io que quiero decir, this section is full of love is just</td>
<td>Everyone who is in love?</td>
<td>Couples that is in love</td>
</tr>
<tr>
<td>It's just what every</td>
<td>Every pairs? Every</td>
<td>Couples that is in love</td>
</tr>
<tr>
<td>Everyone who is in love?</td>
<td>In love</td>
<td>In love</td>
</tr>
</tbody>
</table>

(A1C-4-12 Sept 12-S1-S2)

¿Cómo fue que dijo usted, la edad media cómo fue que dijo?

<table>
<thead>
<tr>
<th>S8</th>
<th>S9</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle earth, no es la tierra media</td>
<td>Si, porque la Edad Media…</td>
<td>Entonces coloquemos, age, age</td>
</tr>
<tr>
<td>Si, sierra media pues sí, ¿no?</td>
<td>Middle Age</td>
<td>Age, ¿Cómo es que es?</td>
</tr>
</tbody>
</table>

(A4D-259-272 Sept 19 S8-S9)

In this last excerpt students also wanted to know if they were using the appropriate words. Besides that, they wanted to avoid repetition in their writing because they had already used the word “appeared” several times.

<table>
<thead>
<tr>
<th>S8</th>
<th>S9</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bueno, pongamos en the Spanish films appeared en esta época aparece Pedro Almodovar in the Spanish films, Si?</td>
<td>En esta época toma fuerza algo así</td>
<td>In this time</td>
</tr>
<tr>
<td>Si, bueno</td>
<td>In this time, si ¿se dice epoc?</td>
<td></td>
</tr>
</tbody>
</table>

(A1C-4-12 Sept 12-S1-S2)
Exchange of background knowledge about writing

Another feature of collaborative writing shows that some students were aware of some of the stages in the writing process that facilitated their writing practice; students exchanged background knowledge about writing. For example, experience and theory show that free writing is a technique that contributes to develop new ideas (Oshima & Hogue, 1999). This key aspect was implemented by some groups in the elaboration of their hypertexts. One of the students knows one technique to write, that is free writing. He understands that he does not need to think of spelling at the drafting stage; he just lets his ideas flow and that is what is important in this exercise, to develop their ideas when writing their hypertexts.
The following hypertext draft and final version about “Colombian Natural Parks” evidence some improvements on lexical use, spelling and text coherence, after revising teacher’s feedback.

**H3-August 29-S-S7 (Draft 1)**

**H3-Sept 5-S-S7 (Draft 2)**

**H3-Nov 4-S-S7 (Final version)**

**El Tuparro National Park**

**General Location**
It’s located in the Llanos Orientales, in Vichada Department, where Puerto Carreño Municipality is. On the east, it limits with Orinoco’s River is on Venezuela frontier; the west limit is the Hormigas’ stream junction; and on the north, it limits with the Tomos’ river, and on the south, the Tuparrito and Tuparro Rivers.

To continue with negotiation as the second part of the process, it helps to answer the main question of this study. It tells us that students developed their EFL writing when they produced hypertexts in groups.
The feature to highlight from this process is that students faced vocabulary restrictions and through discussion and group decisions they chose appropriate vocabulary to go on with their writing work.

The process of negotiation in our classes in this different way of approaching writing is innovative because students could have the freedom to discuss and interact with members of their group, valuing, accepting, and taking advantage of each other's potentialities to grow in their group dynamics, just to mention some of the negotiation issues that could be taken into account when developing this kind of group activities in our classroom.

The process of negotiation was evidenced when students worked together to understand texts. Different procedures for that purpose were identified.

**Facing Vocabulary Restriction**

This procedure exemplifies some steps students passed through in order to overcome difficulties of vocabulary restriction and information about understanding meaning from L1. Referring to the different steps mentioned before, the excerpts below show that some students first resorted on synonyms to solve doubts related to vocabulary translation, but since this was difficult because of topic specialization, they decided to use proper nouns as they came from L1 as another resource. Later they overcame that restriction with dictionary use and discussion among themselves to write the appropriate word or ideas.

T: ¿Qué dificultades tuviste durante la experiencia de escritura de hipertextos?

S7: Al principio era como palabras muy difíciles y no teníamos la ayuda de diccionario, entonces era como buscando sinónimos pero no, entonces se nos dificultó con el tema, pues eran necesarias, pues decidimos usar nombres propios de lugares, de sitios, para arreglar un poco esa dificultad, pero fue al principio, después ya con ayuda del diccionario fue más fácil…

(I-S7-Oct 31-Q1)

The following excerpt and final version about “Colombian National Parks” shows how students recalled the same animal and it receives different names according to the place they live in, and they struggled until they found the word they meant.
H3-Nov 4-S6-S7 (Final Version)

Gorgona Natural Park
Fauna

There are 18 kinds of saurus, and 15 kinds of serpents like Boa, Coral, Talla Equis and Chonta. The river tortoise, little lizards, and 3 kinds of sea turtles like Caguama, Green turtle, and Stride turtle. 3 kinds of frogs, one kind of toad, one kind of Anuros, and two kinds of Salamandras represent the Amphibious.

In this process of negotiation students valued their own knowledge and others’ previous knowledge to write their hypertexts. This fact is important to consider in further writing experiences because previous knowledge about grammar, lexis, coherence and writing may support each other and expand their view and experience on writing topics of their interest. Sometimes they experienced difficulties in text organization but later on they created their own steps to organize ideas in a text.

Valuing Own Knowledge and Other’s Previous Knowledge

This procedure shows how students found that they had some knowledge about the topic chosen; this fact gave them more confidence to write. Besides that, some students mentioned that if they were asked to write about topics they liked, it would be more motivating because they could investigate and go deeper into their hypertexts. In other cases, previous knowledge about grammar
was a great support to help each other. From this previous knowledge each student learnt from the others.

Some students expressed their preference for a particular topic they had knowledge about. They built their writing from the previous knowledge they had.

T: ¿Qué fue fácil para ti en esta experiencia de escritura?
S4: Fácil de pronto, escribir del tema pues uno ya tiene conocimiento sobre él, por eso lo escogimos entre los tres porque tenemos conocimiento de los equipos, pues en este caso datos específicos de ellos.
(I-S4-Oct 31-Q5)

Some students expressed they loved this experience because they wrote about topics they liked and their motivation was increased to find more information on the topic.

T: ¿Qué sabías del tema?
S8: Pues es el tema… a mí siempre me ha gustado mucho el cine y cuando a uno le gustan las cosas pues investiga harto pues ahí más o menos pues igual esto me ha servido para profundizar más en cosas y todo igual siempre yo colecciono películas entonces ahí uno se da cuenta de unas cosas… las películas las tenía ahí no sabía que las cosas eran así….
(I-S8-Oct 10-Q5)

Some students found that their partner’s knowledge about grammar supported their production and they felt safer about their writing.

T: ¿Qué aprendiste de tu compañera cuando estabas escribiendo?
S2: No, es más que todo un apoyo como en el sentido de la gramática como que ella sabe cosas que yo no sé o como se complementa yo se cosas que siempre se está complementando y además en cuanto a la gramática uno hay cosas que se le olvidan se le escapan, pues yo le acordaba o ella me acordaba, resultábamos ayudándonos en ese sentido, pero fue así como un apoyo y un acordarse de lo que se ella se acordaba, pues estar retomando…
(I-S2-Oct 31-Q1)

Students valued this experience because they learnt from each other in terms of knowledge about the topic being developed in the hypertext.

T: ¿Y qué se te facilitó?
Solving Difficulties in Text Organization

Solving difficulties in text organization is yet another procedure that evidences the process of negotiation when students approach writing tasks. The following sample shows that the procedure related to solving difficulties when organizing ideas in a text can be exemplified in the fact that students followed some steps to organize ideas in a text, adopting an agenda, getting information, synthesizing main ideas, and then writing according to the established plan exposed in their concept map.

T: ¿Cómo realizan el trabajo de escritura de hipertextos? ¿Cómo lo hicieron?

S5: Se establecieron como unas fechas, traíamos información sobre lo que íbamos a trabajar, se leía eso y pues tratábamos de sacar resúmenes o ideas más importantes y se escribía y pues nos organizamos en ciudades o países cada uno encontraba información de algo y lo leía y escribía acerca de eso

Another evidence of students’ negotiation towards their hypertext task was that metacognition on multilinearity was done in pairs or in groups. Students developed metacognition to understand how multilinearity worked on hypertext design. Understanding multilinearity of hypertext in the field of negotiation is important because students construct their hypertext together and understand that concepts are connected to offer multiple readings to users.

Working with Multilinearity of Hypertext

The organization of the hypertext implies the understanding of navigation among concepts and the multilinearity of hypertexts. Next sample shows that understanding.

T: ¿Qué te interesó o qué te sorprendió de este trabajo del hipertexto?
The process of negotiation through hypertext reveals that it is a group construction where every participant has something to contribute with. Everyone is heard and some agreements are made on contents and procedures to balance amount of tasks among group members and to work in a cooperative way. Students distributed their job fairly and participated with constant enthusiasm. Some hypertexts were constructed simultaneously and some others were written individually and then discussed and revised in group. This is a good example of working fairness in our classes where everybody contributes and we teach and learn from others.

**Reaching Agreements on Contents and Procedures**

This procedure reveals how students reached agreements on what to write about and how to write their hypertexts. The coming excerpt shows how students make decisions about what to write in their hypertext.

1. S7 Yo creo que lo primero que hay que hacer es esto, o sea esto de geografía que es como lo más grande
2. S6 No, sí, sí.
3. S7 O sea darle dos clases a eso
4. S6 Claro esto es lo más sencillo, esto toca buscar más información esto sí uno lo encuentra en cualquier parte creo que esto dediquemosle no mucho tiempo porque geografía eso en cualquier mapa usted busca imágenes, physical information, todo eso nos sale en cualquier atlas no sé si esto que es de fauna y flora y toda esa vaina si pues toca con más información pues es más difícil de buscar.
5. S7 Pero entonces...?
6. S6 Que son 4 vainas, tenemos 3 creo que dediquemosle como...
7. S7 La primera
8. S6 A esto a geografía y las otras 4 y sino alcanzamos, pues de pronto al principio sí.
9. S7 Bueno listo, entonces
Next excerpts expose different procedures students followed when they wrote their hypertexts. For example, the first two refer to how students gave their reasons to decide on how to select the most important information to write.

T: Háblame del trabajo de negociación de escritura, de investigación.

S6: Como fue llegando se fue dando, había cosas que a mí me parecían pero que a él no, primero empezamos como a argumentar por qué sí y por qué no las cosas, por ejemplo al principio queríamos poner todos los párrafos, pero habían hartoísimos párrafos bueno entonces fuimos negociando y dejando los más importantes, bueno entonces vamos a hacerlo ahora por regiones, entonces ahí como que fue una experiencia así

(I-S6-Oct 31-Q7)

**Exchanging topic knowledge to plan their writing**

This procedure where group negotiation is present refers to students’ interaction and exchanges of information or knowledge they had about the topic chosen. This situation let students adjust and improve their concept maps and, therefore, their hypertexts.

In the first excerpt, two students were talking about the main concepts they were going to write about based on their concept map as illustrated below.
And in the second excerpt, students chose the topic they already knew, and for them this writing experience was easy because they were familiarized with the topic of interest, they loved it.

T: ¿Qué fue fácil para ti en esta experiencia de escritura?

S4: Fácil de pronto, hablar del tema pues uno ya tiene conocimiento sobre él, por eso lo escogimos entre los tres porque tenemos conocimiento de los equipos, pues en este caso datos específicos de ellos.

(A1B-134-137 Sept 5-S1-S2)

Building up Grammar Knowledge through Peer Interaction

This procedure of group negotiation refers to building up of new knowledge about grammar while students were writing their drafts of their hypertexts. Grammar here is interchangeable with syntax as synonym of structure. In that interaction or discussion about how to put their ideas in coherent way students may reinforce and clarify information about grammar use. Previous knowledge counts once again in this matter. The ensuing excerpt and final version of the hypertext about “Colombian Natural Parks” refer to the analysis two students made when trying to find the verb agreement between a third personal singular pronoun and the verb form. One of them gave the answer and the other found the use by making an association of “He,” third person singular, and “has” instead of “have.”

145 S6 The Gorgona island
Gorgona Natural Park

Extension
The Gorgona Island has 24 square kilometers. The reserve has 49,200 Hectares including Gorgonilla Island, and 3 little islands around the sea area.

The coming sample shows how students realized, after looking up for a while, that the letter “ñ” present in Spanish does not exist in English.

Next example points out that comparison among different past participle forms led them to infer the correct grammar form as it is also represented in the hypertext first draft and final version about “An approximation to the movies”
History
Beginning
For centuries, many civilizations have found ways of playing the reality, for example, representation with shadows, the first shows with animated images.

Working in a Cooperative Way

This procedure shows how students worked in a cooperative way. “The ability to adjust one’s behavior to work effectively with others and to communicate with others can be learned only in the process of working and interacting with others, thus cooperative learning results in more positive social development
and social relations among students at grade levels” (Kagan, 1994). The example below evidences one of the features of learning with others.

T: ¿Qué aprendiste de tus compañeros?

S5: De pronto como aprender a tener tolerancia, que muchas veces escriben algo que uno como que no le gusta o no le parece, pero igual es la idea de ellos entonces toca como que aceptarla, eso mismo les pasaba de pronto a ellos conmigo, entonces como aprender a aceptar ideas que de pronto uno no comparte pero de pronto pueden aportarle algo al trabajo.

This dynamics showed that students organized their hypertext writing in different ways. Some hypertexts were written individually and then linked to the development of the whole hypertext; in other cases, some other students wrote their hypertext together and worked simultaneously with the same tasks. Some others distributed the same number of tasks; they were fair in distributing their work, and everybody participated with the same enthusiasm.

Giving the chance to students of being authors of their own hypertexts enriched their motivation to practice writing and therefore I agree with Min Liu and Susan Pedersen (1998) whose study shows that project based instruction has the potential to enhance learning. In addition, I share their view when they say that the skills most affected in these kinds of study included planning, presentation, collaboration, task distribution, and time management. In this study, I worked with the writing process stages: brainstorming, drafting, revising and editing and throughout this process students used different strategies to overcome difficulties when dealing with hypertext construction.

Now I will refer to the second category which answers the second sub question: “What does the negotiation process performed while writing hypertexts collaboratively inform us about students’ EFL writing?” of this study. This second category is named as “Use of concept mapping and other strategies to guide students’ hypertext writing and overcome difficulties in hypertext writing.”

II. Use of concept mapping and other strategies to overcome difficulties in hypertext writing
Incorporating Concept Mapping

Concept mapping refers to the first part of this second category. This strategy was implemented in the English class with my students in order to guide their hypertext writing. This experience of teaching and guiding students on how to write a concept map is very helpful to structure hypertexts because on the one hand, it lets students the planning of ideas and promotes the construction of students’ own thought and knowledge of a topic of interest.

Concept maps are unique ways of expression of someone’s ideas; each concept map contains a particular interpretation of a topic. The following examples reveal the process students went through to write their hypertexts. Students started the construction of a concept map (brainstorming stage) around a topic of interest; then, they continued with the development of each concept (drafting stage). Later on, they incorporated teacher’s feedback (revising stage), and concluded with hypertext writing (the editing stage).

Concept map Nº 1. Colombian Recipes

![Concept Map]

H1- Sept 5- S1-S2

All around Colombia there are a lot of different cultures, all of them with things that makes you recognize them. Think of a connector to link previous ideas. The food is one of the principal differences.
To sum up, so far, other metacognitive strategies were used by students in their hypertext construction, these strategies “allowed students to control their own cognition” (Oxford, 1990, p. 135). Metacognitive strategies go beyond cognitive strategies. In other words, students centered their ideas towards the orientation they gave to their hypertexts. Thus, they kept in mind the audience. The previous strategies helped students consider preferences of other people interested in reading their production.

Now I continue with conclusions and pedagogical implications of this study.

Conclusions and Pedagogical Implications

Students’ EFL writing is built while producing hypertexts collaboratively through the process of collaborative hypertext writing and negotiation and simultaneously through the use of concept mapping and other strategies to overcome difficulties in hypertext writing.

Students understood and used key features of hypertext writing and using concept maps enriched vision of writing reference.

In the process of collaborative hypertext writing concept maps facilitated reflection upon the most important topics among the topics chosen.

This experience highlighted academic and social construction through the interaction with others.

The process of negotiation through hypertext reveals that:

- It is a group construction
- every participant has something to contribute with
- everybody is heard
- some agreements are made on contents and procedures
- students balance amount of tasks among group members
- students work in a cooperative way.

Students developed metacognition to understand how multilinearity worked on hypertext design:

- The Nonlinearity extended the experience of accessing texts in a nontraditional and nonlinear way. Different views (sources/texts,
Exploring students’ EFL writing through hypertext design

students’ knowledge, technology) are important to consider. This experience motivates students to explore the hypertext through different paths.

- Nonlinearity might to clarify doubts that may emerge from a reading practice.
- Nonlinearity explores different media and emerges as a support to understand texts by means of extra help notes such as explanations of words or drawings.

Teachers may provide more opportunities for students to discover or consider some other strategies to help them be aware of their strengths and weaknesses in terms of writing.

In this study it was important to keep in mind students’ voices in selecting the topics they want to work on. The choice of working with topics of their interest motivated them to construct a project, and they loved connecting it to technology. The impact of their projects was noticeable because they were meaningful to them. Students expressed that they would be interested in carrying out a new project, overcoming the difficulties they had had with this project; if they could have more time hey would go deeper in the topics. This study could be replicated in any context keeping in mind the practice of writing and connecting it with hypertext design.

I found this experience enriching because it worked. The possibility of having students of different engineering programs gave me a different insight to orient my teaching in class and helped observe what was happening with this proposal from a researcher’s point of view.

The impact this research may have among community members is that it could be socialized as a sample of a different practice of writing in class, relating it with the use of technology and topics of students’ interest.

Teaching writing at any grade level requires incredible expertise and dedication. To work on this proposal it was necessary to adapt my methodology without forgetting the syllabus proposed to be carried out in this English course. The new roles of English teacher-researcher I assumed helped me to expand and modify my perception of these new practices in class and oriented me to have new challenges and ways of learning and teaching.

I hope this experience can contribute to setting up other projects that aim at connecting writing and hypertext design meaningfully, since it motivated
students to write and go deeper about the topic they chose. Following writing stages such as planning, drafting, and revision stages and the use of technology also motivated them to address in a different way their writing practice.

Through this experience, group work and negotiation were of great importance in orienting a class. Students expressed that they learnt to be tolerant when constructing ideas with others. They also learnt to accept ideas that they do not share but are necessary to support the project. Besides that, students had the chance to share and complement each other’s knowledge on the topic chosen. Furthermore, students also shared abilities they had in relation to design, and experience with grammar to articulate and integrate during the whole hypertext writing proposal. In addition, some students who knew more English than their partners could teach them and they learnt from each other. Likewise, some students taught each other how to work with hyperlinks, how to design a web page or how to work with hyperlinks using Power Point. It was a continuous knowledge building process which promoted personal and social growth.

In relation to the selection of the topics to be explored in hypertext construction, specific topics should be kept in mind otherwise; time constraints might affect the development of a good hypertext.

The following are recommendations I could provide out of this experience: it is important to motivate our students through our proposals, finding a connection between our classes and students’ needs and interests based on their contexts. Also, teachers need to incorporate not only negotiation in their daily practices to understand differences in terms of students’ personalities and character, but also diversity of syllabi that enriches diversity in the subject constructed in groups. Besides that, socialization of these practices such as introducing hypertext design makes students feel proud of their skills, acquisition of new knowledge and awareness of their needs to be fulfilled in future projects.

My experience, oriented to developing students’ writing through hypertext design, makes me feel that I am contributing to this field since hypertext production engages new generations in writing about topics of interest in their fields of knowledge or culture in general. Keeping in mind this experience, I want to invite teacher-researchers to face and assume new roles through self-observation and systematization of their work with the help of Information and Communication Technologies in order to publish and show good results in the most well known journals that can support and orient other colleagues.
Exploring students’ EFL writing through hypertext design

References


Appendix 1

Sample of Audio recording

Audio recording N° 2

August 29th, 2003   two students S3   S4

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>S3:</td>
<td>Bueno vamos a hacer esta vaina rapidito</td>
</tr>
<tr>
<td>2</td>
<td>Comment:</td>
<td>Students are filling out a schedule for planning their writing</td>
</tr>
<tr>
<td>3</td>
<td>S3:</td>
<td>Entonces es un mapa conceptual</td>
</tr>
<tr>
<td>4</td>
<td>S4:</td>
<td>A ha</td>
</tr>
<tr>
<td>5</td>
<td>S3:</td>
<td>Supongamos que tenemos the most important soccer teams, entonces of Europe entonces tenemos in France, Spain, England, Italy, Germany listo y acá entonces los equipos Munich, b….. Entonces seria como acá.</td>
</tr>
<tr>
<td>6</td>
<td>S4:</td>
<td>En estas cuatro sí o no? addressing the teacher</td>
</tr>
<tr>
<td>7</td>
<td>T</td>
<td>Leave it in blank, next class you write observations if you are updated, if you are one step behind evaluate your writing.</td>
</tr>
<tr>
<td>8</td>
<td>S3:</td>
<td>Entonces aca seria</td>
</tr>
<tr>
<td>9</td>
<td>S4:</td>
<td>¿Cuáles son, no?</td>
</tr>
<tr>
<td>10</td>
<td>S3:</td>
<td>The most important teams of France, England, Italy y Germany, no cierto?</td>
</tr>
<tr>
<td>11</td>
<td>S3:</td>
<td>1, 2, 3, 4</td>
</tr>
<tr>
<td>12</td>
<td>S3:</td>
<td>Si</td>
</tr>
<tr>
<td>13</td>
<td>S4:</td>
<td>Entonces, ¿Sería solo ésto?</td>
</tr>
<tr>
<td>14</td>
<td>S3:</td>
<td>Sí seria eso</td>
</tr>
<tr>
<td>15</td>
<td>S3:</td>
<td>Acá seria hablar de</td>
</tr>
<tr>
<td>16</td>
<td>S4:</td>
<td>Estas tres</td>
</tr>
<tr>
<td>17</td>
<td>S4:</td>
<td>Estas cuatro</td>
</tr>
<tr>
<td>18</td>
<td>S3:</td>
<td>Acá seria hablar de Munich</td>
</tr>
<tr>
<td>19</td>
<td>S3:</td>
<td>Pero aca toca, toca</td>
</tr>
<tr>
<td>20</td>
<td>S4:</td>
<td>Repartir esto</td>
</tr>
<tr>
<td>21</td>
<td>S3:</td>
<td>Toca borrar esto, un borrador</td>
</tr>
<tr>
<td>22</td>
<td>S4:</td>
<td>No, un borrador</td>
</tr>
<tr>
<td>23</td>
<td>S4:</td>
<td>Esto porque hablamos de Munich</td>
</tr>
<tr>
<td>24</td>
<td>S3:</td>
<td>Vamos a hablar</td>
</tr>
<tr>
<td>25</td>
<td>S4:</td>
<td>Ah, sí directamente Munich</td>
</tr>
<tr>
<td>26</td>
<td>S3:</td>
<td>No, no France, Spain, England y acá osea nosotros hablamos de Italy, Germany, y yo estoy seguro que no vamos a alcanzar a hacer todos los equipos de todos esos lados</td>
</tr>
<tr>
<td>27</td>
<td>S4:</td>
<td>Por eso vamos</td>
</tr>
<tr>
<td>28</td>
<td>S3:</td>
<td>Por eso hacemos dentro de 8 días hacemos de France, Spain, no de los que más sabemos más bien nos damos un poco más de tiempo…. un borrador</td>
</tr>
<tr>
<td>29</td>
<td>S3:</td>
<td>Writing in English. The most important teams of Spain, England, Italy, listo y aca ponemos France y Germany. Ya tenemos los equipos</td>
</tr>
</tbody>
</table>
### Appendix 2

**Samples of Students’ Reflection Logs**

#### Students’ logs

**Reflexión acerca de mi proceso en la escritura del hipertexto**

<table>
<thead>
<tr>
<th>SL1N Nombre: S6</th>
<th>Fecha: Agosto 29 de 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Dificultades que tuve hoy al escribir:</td>
<td>Organizar bien las ideas para tener una mejor escritura.</td>
</tr>
<tr>
<td>* Facilidades que tuve al conceptuar o escribir las ideas del hipertexto:</td>
<td>Al tener un cuadro conceptual se hacía más fácil la escritura.</td>
</tr>
<tr>
<td>* De esta manera organizamos el trabajo de escritura en grupo:</td>
<td>Organizamos o por lo menos intento, las ideas y luego empezamos a escribir, aunque no muy buena ortografía ni gramática.</td>
</tr>
<tr>
<td>* El proceso de colaboración entre el grupo se dio de la siguiente forma:</td>
<td>Cada uno exponía en ideas y luego las intentamos fundir.</td>
</tr>
<tr>
<td>* El día de hoy me sentí:</td>
<td>A gusto con el trabajo aunque nos falto mucho.</td>
</tr>
</tbody>
</table>

**Reflexión acerca de mi proceso en la escritura del hipertexto**

<table>
<thead>
<tr>
<th>SL2N Nombre: S6</th>
<th>Fecha: Septiembre 5 de 2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Dificultades que tuve hoy al escribir:</td>
<td>Nuevamente la gramática y ordenar bien las ideas.</td>
</tr>
<tr>
<td>* Finalidades que tuve al conceptuar o escribir las ideas del hipertexto:</td>
<td>La información ya estaba dada y además contábamos con un diccionario que nos ayudó.</td>
</tr>
<tr>
<td>* De esta manera organizamos el trabajo de escritura en grupo:</td>
<td>Teniendo la información sobre el tema en español, los dos íbamos intentando traducir y de escribir lo mejor posible la información en Ingles.</td>
</tr>
<tr>
<td>* El proceso de colaboración entre el grupo se dio de la siguiente forma:</td>
<td>Los dos íbamos dando ideas y nos íbamos complementando.</td>
</tr>
<tr>
<td>* El día de hoy me sentí:</td>
<td>Bien aunque un poco apurado porque el cronograma esta un poco atrasado.</td>
</tr>
</tbody>
</table>
Appendix 3

Sample of Semi Structured Interview

Gathering of information about the process of negotiation and perceptions towards the writing process.

- ¿Cómo negociaste para agilizar el trabajo?
- ¿Qué responsabilidades tuviste en el grupo?
- ¿Cómo se realizaron los trabajos de escritura en grupo?
- ¿Quién estaría interesado en leer tu hipertexto?
- ¿Qué aprendiste de tus compañeros y qué les enseñaste en esta experiencia de escritura de hipertexto?
- ¿Qué dificultades tuviste durante el proceso?
- ¿Si tuvieras la oportunidad de escribir otros hipertextos en el futuro ¿Qué implementarías y cómo mejorarías tu proceso de escritura en inglés?
- ¿De qué manera el trabajo colaborativo utilizado para diseñar el hipertexto desarrolló tu proceso de escritura? Considera los siguientes aspectos: forma, planeación, rango de vocabulario, coherencia y cohesión, propósito y audiencia.
Appendix 4

Samples of drafts and students’ hypertexts final versions

H4-Sept 5-S8-S9 (Draft 1)

In the 80’s video and more TV channels appeared, with this people watched more movies than ever. In this time films contained many FX (special effects), muscle actors, violence, heroines, politic themes, drama and the return of the comedy (Woody Allen). Pedro Almodovar also appeared in the Spanish films.

H4-Sept 5-S8-S9 (Draft 2)

In the 80’s video and more TV channels appeared, with this people watched more movies than ever. In this time films contained many FX (special effects), muscle actors, violence, heroines, politic themes, drama and the return of the comedy (Woody Allen). Pedro Almodovar also appeared in the Spanish films.

H4-Sept 5-S8-S9 (final version)
Exploring students’ EFL writing through hypertext design

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