#### PERCEPTIONS OF THE USE OF WEB 2.0 TOOLS IN SECOND LANGUAGE COLLABORATIVE WRITING

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#### ABSTRACT

This article presents a survey data of university students enrolled in a course in applied linguistics on the use of web tools in the collaborative writing process. This study is derived from a larger one that analyzes tools such as Facebook, wikis, and blogs within the writing process in a second language.

The goal of this study was to determine students' perceptions of the different tools in an academic setting, the skill level, and collaboration. The theoretical framework is based on the social theory of learning and communities of practice.

Keywords: Collaborative writing, perceptions, Web 2.0, language learning.

#### PERCEPCIONES DEL USO DE HERRAMIENTAS WEB 2.0 EN LA ESCRITURA COLABORATIVA DE SEGUNDAS LENGUAS

#### RESUMEN

Este artículo presenta resultados de una encuesta de estudiantes universitarios dentro de un curso de lingüística aplicada con respecto al uso de herramientas web en el proceso de escritura colaborativa. Este estudio es derivado de uno mayor que analiza herramientas como Facebook, wikis y blogs dentro del proceso de escritura en un segundo idioma.

El objetivo de este estudio es determinar las percepciones de los alumnos acerca de las distintas herramientas en el contexto académico, el nivel de dominio y colaboración. El sustento teórico está basado en la teoría social del aprendizaje y las comunidades de práctica.

Palabras clave: escritura colaborativa, percepciones, Web 2.0, segunda lengua.

# INTRODUCTION

**T**echnology has gained more and more acceptance in the academic context, and even more in language learning instruction. Studies have demonstrated that regarding learning using technology and studies of students' attitudes towards the use of technology in academic tasks has increased positively (Salamberry, 2001). In the Mexican education context, the National Development Plan 2013-2018, where the Public Education Department (SEP), has established learning a second language as part of an integrated curriculum which has derived in a language policy, where public universities started incorporating additional language courses in their academic programs, to ensure acquiring a higher level of English, B1 in the Common European Framework of Reference (CEFR) or intermediate English level at the time of graduation. Along with these integrations to the curriculum, a need to innovate practices in English as a Second Language (ESL) instruction is also present.

As a result of innovation, Spanish universities have led to incorporate social networking in undergraduate ESL classes as part of the curriculum (García de Torres, 2011). Some other universities in Latin America are also looking the incorporation of Web 2.0 tools in the academic context. In Loja, Ecuador, in a technical higher education institution, a teacher's training course on the use of Web 2.0 for university students has been implemented. In Mexico, for example, a study was undertaken with 414 university students from different undergraduate programs (14) with the purpose of knowing the use of social networks as a learning tool: the results showed that after communication for school activities (71%), 45% used social networks such as Facebook for study purposes: retrieving information, posting assignments, and reviewing learning material, and the rest for gamming, thus, showing the importance of these tools as part of their growing popularity (p. 4).

In a study by Viadeo, the worldwide leader in professional network exhibited a research on habits and customs on professional and their usage on technology. Statistics showed an increase of nearly 194% from March 2010-March 2011, a higher percentage than the standard 59% worldwide. This study showed that Mexico is a place where the adoption of new technology is growing up fast, that 33% users use it for updating profile information; 24% use them to share content, (news, documents, and surveys) with other users; 13% for professional networking, and 11% for participating in discussion forums (Viadeo, 2011). More than 80% are users of Facebook.

This insertion of university students and the use in new technologies has demonstrated a positive outcome in student's motivation towards learning (Shih, 2011). One of the reasons for this is the implication of social collaboration in learning. Some findings in recent studies showed how online learning and instruction have positive impact on language learning. Conroy (2010) concluded that students are being supported in language learning and academic writing with an internet-based instruction where they can use e-mails, bulletin boards, and online discussions to promote learner-instructor interaction.

A good example of incorporating technology in ESL instruction is the Institute of Technology and Higher Education (ITESM), which has adopted a task, based learning approach with web 2.0 tools. In their study, student response was "particularly high and self-transformation of knowledge was achieved" (Burgos, 2007).

Some of the challenges in this inclusion in some programs, in Mexican universities this has been more as a slow process of incorporation. The reasons for this are first: the teachers' reluctance to change their teaching techniques, their lack of preparation in adopting technology as part of their everyday classroom activities, and some regions where wireless access is almost nonexistent (Santos, 2010).

Still there are few documented studies on the use of technology in English language learning curriculum among universities in Mexico (Guzman & Rojas-Drummond 2012). In fact, there is an absence in research literature in Tamaulipas. This brings an opportunity for research with respect the use of Web 2.0 and second language instruction in Mexican universities. In the case of Tamaulipas, in the Universidad Autónoma de Tamaulipas (UAT), a policy of language proficiency was implemented in 2007 as a requisite for graduation. The students must receive five courses of ESL or demonstrate an intermediate level to become illegible for a diploma. In these courses there has been a promotion for technology use in the classroom.

The case study investigates the student's perceptions of collaborative Web 2.0 tools to support academic work. The aim is to explore the empirical results to evaluate the perceived effectiveness of wikis, blogs, and social media groups as online collaborative tools. The case study is organized in three main sections: participants, object, and approach. The participants are undergraduate students in the undergraduate degree of Applied Linguistics, the object is the use of collaborative tools in ESL and the approach is exploratory considering the research questions below and theory support.

This paper is organized as follows: the presentation of the research questions, followed by the theoretical framework and the collaborative tools, the methodology of the work, then the preliminary results and further research.

Numerous studies in online instruction and technology have been influenced by social learning theories (Hrastinsky, 2008), along with constructivist theory that assumes that students act and reflect according to the environment, which reflects in experiential knowledge (Woo & Reeves, 2007).

## **RESEARCH QUESTIONS**

This work examines student's perceptions of different web 2.0 tools and collaborative writing in an undergraduate level.

Accordingly, the research questions to analyze are:

- What are students' overall perceptions of the use of Web 2.0?
  - How students perceive the use of web tools as part of their learning?

- Do perceptions vary depending of factors such as age, gender, digital competence, use and frequency of digital tools?
- How collaboration using Web 2.0 tools can enhance students' writing skills?
  - Are the students comfortable receiving and giving feedback to their peers?
  - Do they prefer working individually or collaboratively in a writing task?

## THEORETICAL FRAMEWORK

The theories that support this study are the social constructivist theory and the communities of practice and their relationship with the collaborative tools in writing. These theories enhance the nature of collaborative learning in terms of learner engagement, language, and participation; moreover, collaborative tools aid the collaborative process facilitating communication, interaction, and scaffolding.

### Social learning theory and constructivism

**O**ne of the landmarks in learning in virtual environments is collaboration (Eshet, 2012; Wollack & Koppenhaver, 2011). This social activity is a form of learning since the participants join a knowledge community (Vygotsky, 1978). In a classroom setting, constructing knowledge or develop skills are made by group efforts in which people construct their knowledge by relating this process to their previous experiences in real situations related to the social environment. Thus, they are able to understand the task and share decision-making goals, along with creating a sense of responsibility for the document. In this context, learning occurs as learners improve their knowledge through collaboration and sharing information in real scenarios.

For Vygotsky, language and culture play an essential role in human collaboration and communication. Then we can say that Socio

Constructivist Theory is essentially a collaborative learning theory. In education collaborative learning is seen as a process of peer interaction where the teacher serves as the mediator (Brodahl, 2011).

The difference between the individual's acting alone and when he is guided by a more experience other is what is called the *Zone of Proximal Development (ZPD)* and it is defined as follows: "it is the distance between the actual developmental level as determined by interdependent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978:86). This zone expresses the social aspect of learning, as describes the tasks the learner can do but only with the help of a more experienced person.

Therefore, students can learn alone but just to a certain level since they need to engage in a level of activity that they cannot manage alone without the assistance of a more knowledgeable person. Vygotsky's theory is a useful construct to understand the tension between individual learning and collaboration with others. Students' learning development in an online collaborative environment should not be assessed by what they can learn independently with the tools alone, but rather by what they can learn in collaboration with fellow students (Koohang, Riley & Smith, 2009).

A constructivist notion that helps to explain the role of the teacher and that is highly relevant in online learning environments is scaffolding, Donato (1996). Scaffolding allows students to create supportive conditions and acquire higher levels of competence (p. 40). The sociocultural approach emphasizes that the particular communities of practice influence deeply in the type of writing tasks students take, how they are structured, and how they are received, and that such constructs as genres or modes of writing exist in an entire complex of modes and expectations. Even though as Heath (1983) argued, literate practices vary across classes within the same society and that cultural practices on the home or the community can reinforce or contradict the literacy skills and expectations learned at school.

Collaborative tools can serve as a knowledge platform of the community where they can share their knowledge with the group, post information, work together and open up discussions (Brodahl, Hadjerrouit & Hansen, 2011). These tools can facilitate collaborative learning because they provide some key elements fundamental in the communities of practice such as online presence, interactions, communication, participation, relevant content, and reinforcement of relationships.

Web 2.0 applications are collaborative writing tools where a people collaborate by producing a document over the web. A wiki allows multiple users to edit each other content (Bell, 2009). The blog has a more chronological order, where learners can share content, post or comment. These tools allow the learners to see their own progress and help them reflect on their work.

## Collaborative learning used in writing

According to Jones (2012), collaborative writing provides several benefits. First, it creates the opportunity for mentorship where scaffolding techniques may be used, so learning occurs in a more effective way among the writing members. Sometimes, the best professional development, teaching, or training that could happen would be to allow individuals working in the field time to simply sit down, brainstorm, and share writing process ideas for how to better create a proposal, report, or curriculum (p. 91). Second, writing collaboratively creates a stronger product because each of the collaborators can contribute their strengths as a professional and writer (Jones, 2010).

In recent years, Internet technology in higher education has changed from being primarily used to distribute course materials, communicate and evaluate, to enhancing educational processes that support collaborative student learning (Maloney, 2007). Web 2.0 technology includes, blogs, wikis, social networking, and social bookmarking, and is constructed to support collaborative learning (Ajjan & Hartshorne, 2008; Boulos & Wheeler, 2007; Burden & Atkinson, 2008; O'Reilly, 2005). Web 2.0 provides an umbrella of tools that are being used for personal social interaction, but in recent years have had an active participation in education.

#### **TOOLS FOR COLLABORATIVE WRITING** *Wikis, blogs and other forms of digital writing*

**B**ecause of their low cost, accessibility, and facility to use, Web 2.0 tools have become the wearable technology that is more attractive than traditional software in teaching and learning environments (Brodahl, 2011). During the last decade, the use of several collaborative writing tools such as wikis and blogs has been integrated in teaching, thus, creating new ways of literacy practices.

Storch (2005) points out that students are more receptive to feedback, because they are responsible for the collaborative writing activity. The editing process in wikis, for example, is transparent because all changes are archived, which enables teachers and students to observe writing in learners that may not feel comfortable changing each other's contributions in an open source wiki environment. Given that wikis are relatively easy to edit and changes are published instantly, vandalism or loss of content without the consent among team members may occur. Moreover, wikis are multi-author owned products, and it may be challenging for students to claim individual ownership. As a result, wikis may create aggressive attitudes and feelings of discomfort among users.

Like any other social networking tool, a wiki provides a medium for the writing process that promotes different stages of collaboration and scaffolding. Learners can help each other in organizing, composing, and revising content and form to ensure a good quality text. Some anecdotal reports show that wikis hold great potential for supporting online collaboration and community building (Lee, 2004).

Facebook is considered as one of the most popular platform for social media for university students. Studies show how it used in university context enhances classroom support, participation in online communities, discuss assignments, clarify concerns, and post information along with the increase of motivation in discussion groups to grasp a better understanding of the theoretical principles in ensuring effective reading (Roblyer *et al.*, 2010; Haverback, 2009).

## METHODOLOGY Case Study

As mentioned above, this study derives from a larger one. This paper is about students' perceptions of collaborative writing tools in a higher education context. This paper shows only the quantitative part of the total research. It also establishes a relation between the theoretical framework associated with the learning theories and their connection with the collaborative tools.

This type of research was chosen since it provided a suitable context aliened with the research questions; in addition, it uses methods to collect both qualitative and quantitative data for their triangulation and proper understanding of the student's perceptions using the Web 2.0 tools.

## Overview of the larger research

At the Universidad Autónoma de Tamaulipas, the model of instruction is always promoting the incorporation of technology in their programs. The undergraduate program in Applied Linguistics, students are digital literate looking for ways to innovate in their learning.

The case study took place during a regular course of English academic writing which consisted of 12-week instruction 4 hours a week in the face-to-face modality and 3 hours of online work. The purpose of the course was to develop a practical understanding of relevant topics in the writing process in different genre and/or contexts (in this case media and Internet), and to prompt students to reflect in their work individually as well as collaboratively.

The instruction context considered the "technology-mediated" instruction or "blended learning" method for teaching the course. Some of the advantages of using this type of instruction are the increase on learner engagement, not just academically but also socially, efficient communication through digital technologies, the formation of an online learning community, among others. This enables teachers into a continuous learning monitoring process while students act and reflect within an environment, enhancing reflection, abstraction, and increase in experiential knowledge (Uzunboylu, Cavus & Ercag, 2009).

#### Participants

The participants for this study were selected from a group of university undergraduate students enrolled in Applied Linguistics. There were a total of 21 respondents. They were chosen through a homogenous sample since they shared some common characteristics: all are enrolled in the fifth semester, their level of proficiency in second language is similar (B2), there were 16 females, and 5 male students. Seven in an age range of 19-21 years old, and 14 in 21-24 years old. Group assignments were based on students' background information, knowledge, and their group work skills, as evaluated by their teacher/researcher. This arrangement resulted in a total of four groups.

It is important to mention that the class members were not entirely homogeneous in the sense that, even though they had the same proficiency level, there were two participants that had lived in the United States for several years, while the rest had learned English in a Language Center in Mexico prior to enter the undergraduate program. This influenced the role assignments within the teams, as they were frequently asked to write/review the story, while the others provided the ideas and theme.

Implications in the classroom: the venues required wireless Internet access since the participants performed the tasks in a blended learning environment. The university provided unlimited wireless Internet access; this helped perform some of the activities that took place in the classroom using technology. For the activities they had to do outside the classroom, they all had Internet access at their homes and/or smartphones.

## DATA COLLECTION

 $\mathbf{T}$  his research design consists of three stages: preliminary phase, which included the perceptions survey detailed in this paper,

in regard to usage of Web 2.0 tools, occurrence, and application, as well as skill level. The second stage consisted in two focus groups, one performed just after the first writing task, and one almost at the end of the intervention. It is a longitudinal study where there is an intervention with the different stages previously mentioned.

Table 1. Process for data collection						
Initial phase Second phase Third phase						
Initial survey	Writing tasks using a wiki online	Feedback and reflection				
	writing media					

The data collection took place over the period of the 12 weeks course. The design of the course was divided into three main learning activities or writing tasks, during which the students were asked to work in: a) classroom (face-to-face, online) b) computer lab (both face-to-face), and c) home (online). During these learning activities, they work both individual and collaboratively. The study focuses in three main phases for the completion of each task.

### Survey

To document the first phase, a survey was applied to explore students' demographics, perceptions, digital competence, frequency of use, and usage of Web 2.0 tools in the academic context. It was an online survey, since students are familiar with online content and platforms. It was administered using Google Forms. Since it was an online survey, anonymity was considered in students' answers. This survey served as a reference for the future intervention planning. The survey was open to responses for 3 days. Using the Analytics of the platform, there was a general summary of responses from each item. A total of 21 respondents were documented.

The survey had a five point Likert scale: Strongly Agree, Agree, Neither Agree or Disagree, Disagree, and Strongly Disagree) divided into three sections. The students were asked to state their own digital competence, how well they liked to work with these digital tools, how they use collaboration in writing tasks and in academic context, and to what extent they reflect in their own learning. The second section was about digital competence, estimating students mastery for certain tasks ranging from: Very Skilled, Moderate Skilled, and Basic Skilled; and lastly, the frequency of use of wikis, blogs, and social media groups with a range of: from 3-5 times a week, 1-3 times a week, and Almost never. At the end, there was the Sex category and Age Group category: 17-19, 19-21, and 21-24.

#### PRELIMINARY RESULTS

**L**ven though the project has collected data from different sources, this work focuses mainly in the quantitative results of the survey (initial phase). It does not analyze student's entries on the reflective blogs, nor the social media group interaction, or the quality in writing from the writing rubric, which belongs to the large-scale investigation. Data triangulation on remaining material will be presented in subsequent studies.

The statements of an overall perception of the use of web tools in class activities and the collaborative writing tools are shown in Table 2, especially Web 2.0 tools in the academic context (statements 1-3, 5-8, 12-13), and the collaboration process (statements 4, 9, 10, 11, 13, 14, 15).

Table 2. Overall student's perceptions of using technology							
	Perceptions of using technology						
Statement	Strongly Agree (SA)	Agree (A)	Neither agree or disagree	Disagree (D)	Strongly Dis- agree (SD)	Subtotal- SA+A	Subtot- alD+SD
1. I enjoy using technology in the class activities	52.4% (11)	33.3% (7)	14.3% (3)	0% 0	0% 0	85.7% (18)	0% 0

2. I found easy to complete a	33.3%	47.6%	19%	0%	0%	80.9%	0%
writing task electronically	(7)	(10)	(4)	0	0	(17)	0
3. I have used wikis for	66.6%	33.3%	0%	0%	0%	100%	0%
my class assignments	(14)	(7)	0	0	0	(21)	0
4. I like to complete tasks collaborative	23.8%	47.6%	28.6%	0%	0%	71.4%	0%
rather than my own	(5)	(10)	(6)	0	0	(15)	0
5. I like using Facebook also	38.1%	52.4%	9.5%	0%	0%	43.5%	0%
for academic purposes	(8)	(11)	(2)	0	0	(19)	0
6. I feel comfortable	23.8 %	52.4%	19%	0%	0%	76.2%	0%
participating in class chats	(5)	(11)	(4)	0	0	(16)	0
7. I own a blog or have posted	52.4%	38.1%	9.5%	0%	0%	90.5%	0%
in a blog	(11)	(8)	(2)	0	0	(19)	0
8. I share things on Facebook	9.5%	57.1%	23.8%	9.5%	0%	66.6%	9.5%
on a daily basis	(2)	(12)	(5)	(2)	0	(14)	(2)
9. I appreciate when I receive	33.3%	42.9%	23.8%	0%	0%	76.2%	0%
feedback from my classmates	(7)	(9)	(5)	0	0	(16)	0
10. I usually reflect on my	42.9%	42.9%	14.3%	0%	0%	85.8%	0%
progress and learning	(9)	(9)	(3)	0	0	(18)	0
11. I feel comfortable discussing	38.1%	52.4%	9.5%	0%	0%	90.5%	0%
ideas with my classmates about a task	(8)	(11)	(2)	0	0	(19)	0

12. I consider blogs, and wikis very useful for my school activities	52.4% (11)	42.9% (9)	4.8% (1)	0% 0	0% 0	95.3% (21)	0% 0
13. I like revising and editing in	9.5%	28.6%	52.4%	4.8%	4.8%	38.1%	9.6%
a wiki	(2)	(6)	(11)	(1)	(1)	(8)	(2)
14. I consider	23.8%	52.4%	23.8%	0%	0%	76.2%	0%
my work is appreciated	(5)	(11)	(5)	0	0	(16)	0
15. My classmates consider me	23.8%	47.6%	28.6%	0%	0%	71.4%	0%
as a good collaborator	(5)	(10)	(6)	0	0	(15)	0

According to the above table, there is a high level of acceptance on using technology; (85% +) agreed or strongly agreed that most Web 2.0 tools are easy to use, and that they have used them in academic context: Wikis with 100%, followed by blogs 90.5%, and Facebook being the least popular in this respect with only 43.5%. However, only 38.1% like to edit or revise in the wiki. It seems that male participants showed less enthusiasm using web tools compared to women. Most males' responses were centered in NA or D and one male age 21-24 showed D and SD in statements 8 and 13.

Table 3. Skill level by tool						
TOOLS						
Skill level	Wikis	Facebook	Blog			
Very skilled	38.1%	66.7%	14.3%			
Moderate skilled	57.1%	28.6%	71.4%			
Basic skilled	4.8%	4.8%	14.3%			

Perceptions of the use of Web 2.0 tools in second language collaborative writing

The estimation on digital competence was based on the performance of certain tasks in their cellphones or computers. They were asked to express how they feel about their own mastery of the tools according to frequency of use and difficulty to perform. Students whose skill level was higher were more willing to collaborate with their peers and receive feedback, and reflect on their own learning (Table 2: 10, 11, 12, 14).

Table 3 shows that even though students perceive themselves as moderated skilled they were scoring pretty high on their use. The frequency of use of the tools was another element to compare and complement the level of skill (Table 4).

Table 4. Frequency of use in digital tools							
Frequency of use							
Facebook Wikis Blogs							
3-5 times p/week	71.4%	3-5 times p/week	19%	3-5 times p/week	5%		
1-3 times p/week	19%	1-3 times p/week	76.2%	1-3 times p/week	85%		
Almost never	9.5%	Almost never	4.8%	Almost never	10%		

The two more used tools by students were Facebook (3-5) times a week, then Blogging (1-3) times a week, and Wikis.

The results confirm the hypothesis that students with high frequency level of use and higher level of competence have a more positive attitude towards collaborating in writing tasks; they are more open to express opinion, receive feedback, and reflect in their own learning.

### LIMITATIONS

The following limitations of this study were considered: type of sample, validity and reliability, and time considerations. First, the study was performed in a very limited sample; the participants were part of one university only, thus may not express the overall perceptions of student's population in general. However, this must not invalidate the initial results.

## CONCLUSION

The main goal of this work was to explore students' perceptions of the web 2.0 tools by means of the survey, and at the same time, receive information on their own self-evaluation of mastery on the tools and the frequency of use. This preliminary work offers an exploratory view in an academic context regarding student's perceptions of technology used in the classroom. There are implications to enhance incorporating technology more in second language learning.

This preliminary set of collection of data does not provide a definite conclusion. It would serve as a reference for the larger research, and it must be complemented with the qualitative evaluation of the students' blog entries, the Facebook groups, and the writing pieces corrected. Triangulation data collected will provide a more integrated contribution on the effectiveness of these tools in the process of writing.

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