Meaningful Online Interactions and Writing Improvement

Camara-Walker, Brenda Ann [1] and Irizarry, Vanessa [2]

[1,2] University of Puerto Rico, Río Piedras Campus

Abstract

This paper reports on a research study on a teaching strategy that successfully incorporates conditions that support optimal second language learning in the classroom environment of two low proficiency level English courses at the University of Puerto Rico. Results of the study indicate that providing opportunities to meaningfully interact through the performance of authentic purposeful tasks significantly increases student learning. In this paper, the results and conclusions from a study conducted at the UPR that investigated the effect that online writing strategies have on students' writing fluency performance will be discussed. In addition, a research based model that can be used to integrate technology to the curriculum of General Education courses is proposed.

Introduction

Online technology has become a worldwide platform of communication, dissemination of knowledge and academic exchange of ideas. It has been argued that Latin American and Caribbean ideas travel the world and influence current international thinking through the web, and that, although polemical in some respects, the commonly used language for this

academic exchange of ideas is English (E. Devés, 2008). Thus, the importance of English and online communication in the process of international consumption and creation of knowledge is a fact that must be considered by the General Education (GE) academic communities today.

In the past decade, research skills have greatly relied on accessing information through online search engines and databases. Following this trend, time and effort has recently been placed in developing information literacy competencies at the University of Puerto Rico (UPR). However, the use of technology as a tool to encourage students' participation in ongoing discussions within their areas of study has been somewhat neglected. Online academic technologies such as blogs and discussion forums offer students opportunities to participate in communities of learners outside the confinements of the classroom. Yet, active participation in such forums requires students' effective academic online writing communication competencies. We contend that academic success in higher education today greatly depends on the development of written communication and information technology competencies.

As participants in their technological world, students are using computers for academic and social purposes. At the academic level, they use computers as a tool and resource to accomplish assignments. At a personal level, they socially interact in Facebook, MySpace, Twitter or You Tube. Surprisingly, in Latin America the average young adult between 15-24 years of age spends approximately eight hours a month in social networking (Social Networking Statistics and Trends, 2012). As educators, we should take advantage of their engagement in these social networks and encourage them to participate in online academic communities of learners as well.

Responding to the new educational paradigm generated by the needs of our students and the demands of academia, as English as a Second Language (ESL) educators at the UPR, we face the challenge of integrating technology to the curriculum without having research based models to guide us in the implementation process. In fact, the rapid growth of Internet usage has not been matched by experimental research of online use in ESL classrooms in Puerto Rico (Warschauer, 2007).

In this paper, we will discuss the results and conclusions from a study conducted at the UPR that investigated the effect that online writing strategies have on students' writing fluency performance. In addition, we will propose a research based model that can be used to integrate technology to the curriculum of General Education courses.

Current Research Context

Research on communication technology repeatedly concludes that the integration of technology must be conceived as a tool that facilitates the implementation of pedagogically and methodologically sound teaching practices (Cevetello, J. 2009 and Warschauer, 1996-2007). Thus, before integrating technology to the curriculum, we turned to our discipline's teaching and learning principles from the Socio-Constructivist Pedagogy and the Communicative Second Language (L2) Learning Approach.

Coming from a socio-constructivist background, theorists such as Lev Vigotsky (1962, 1978) and Barbara Rogoff (1994, 1995 and 2003) conclude that language learning is not merely an individual psychological process, but also a meaningful social process. They recommend the creation of communities of learners characterized by engagement in negotiation of meaning, use of collaborative apprenticeship, scaffolded learning, commitment, and mutual trust. The integration of online communication to the ESL

environment facilitates the creation of such communities providing opportunities to use the target language outside of the classroom (Darhower, 2006).

Research on Second Language Acquisition (SLA), ESL and socio-constructivism repeatedly identify several conditions that when present support optimal classroom language learning (Egbert, Chao, and Hanson-Smith, 1999 and 2007). The most prevalent of these conditions are interactive negotiation of meaning, communication with an authentic audience, performance of an authentic task, production of creative language, ample time to plan answer and feedback, mindful attention to learning, and a low anxiety level in the learning environment. Therefore, it is logical to conclude that highly effective ESL practices would include as many of these conditions as possible in the classroom environment while encouraging the creation of communities of learners.

The challenge would be how to accomplish this in our GE English classes considering the English language teaching culture in Puerto Rico and the L2 characteristics of UPR students. "Authentic tasks" and "meaningful interactions" seem to encompass many of the conditions needed to create optimal language learning environments. However, these conditions are difficult to recreate in our ESL classrooms at the UPR because it is unnatural for students to communicate in English among themselves when they all share a common language, Spanish (Pousada, 2005).

"Authentic tasks" require students to use their L2 proficiency level to accomplish a specific activity with a genuine purpose. When people have to do something with language rather than talk about it, the impending need creates a situation where language use becomes natural, a fundamental condition for language learning. Including meaningful tasks in online learning environments makes effective use of the communicative capabilities of technology

and can connect learners in significant ways (Herrington, Oliver & Reeves, 2006). Some approaches that support the use of authentic task strategies for knowledge construction include problem-based learning, computer-supported collaboration and student-centered learning.

On the other hand, "meaningful interactions" refer to utterance exchanges in the target language with a person with whom learners need to negotiate meaning in order to be understood. It also refers to feedback from a more competent other which is another fundamental condition for SLA and learning. Long (1996) proposes that improving a learning environment is best done through negotiation of meaning. He states that this condition "facilitates acquisition because it connects input, internal learner capacities, particularly selective attention, and output in productive ways".

Considering technology as a tool to foster sound teaching practices, we researched online communication technologies to see which could facilitate the inclusion of these two variables, "authentic tasks" and "meaningful interactions", within the context of a community of learners at the UPR. We found that Blackboard, the academic online platform used at the UPR, includes asynchronous "discussion forums". These forums allow for the creation of online academic learning communities in which students interact in writing. By encouraging students participation in class discussion forums we expected them to be able to switch registers from the online social scenario they commonly use (e.g. Facebook) to the formal academic writing scenario. Through scaffolding, they could learn to participate in communities of learners of disciplines within their areas of study.

Developing students' writing competencies and improving writing fluency lies at the core of the English Department's curriculum at UPR. In our initial attempts to integrate

technology, we adapted various strategies from the writing process approach, such as peer editing, to the online environment. However, we observed that when writing online, students' tendency is to chat, translate using the readily available computer tools or copy paste rather than constructing their ideas in English, thus resulting in plagiarism, a major online writing problem (Simonson, et al., 2006). At first, we did not see much difference between what was happening on paper and pencil and what was happening on the computer screen. Yet we noticed that adding meaningful interactions seemed to result in greater student participation and engagement in the online academic writing tasks. Sullivan and Pratt (1996) conducted a study with ESL students at the UPR Mayaguez that compared electronic discussions in a computer assisted classroom with face to face oral discussions. They found that 100% of the students' engaged in electronic discussions whereas face-to-face participation was only 50%. Given the results of this study we wanted to investigate if this increased participation resulted in students' writing fluency improvement.

Studies abroad have investigated writing fluency through linguistic characteristics, such as syntactic complexity (Sotillo, 2000); syntactic and lexical complexity (Li, 2000); and writing accuracy vs. lexical complexity (Shang, 2007). Sotillo (2000) analyzed the syntactic complexity and discourse functions of ESL students' writing in asynchronous and synchronous environments. Her study revealed that asynchronous environments foster more interaction and greater writing syntactic complexity because students had more time to plan their writing. Additionally, asynchronous discussions encouraged more participation in communities of learning because students made extensive contributions to their peers' writing.

Another research that investigated linguistic characteristics of ESL students was that of Li (2000). Statistical results indicated that in asynchronous tasks involving audience interactions there is a tendency to produce more syntactical and lexical complex texts. However, she also found that texts which are more linguistically complex tend to lack grammatical accuracy. Shang (2007) examined the effect that asynchronous mode of writing on intermediate EFL students had on syntactic complexity, grammatical accuracy and lexical density. The researcher found that students made improvements on syntactic complexity, and grammatical accuracy. However, he observed that when students generated "more syntactically complex and grammatically accurate written language, lexical density suffered." He also concluded that with more opportunities to interact and receive feedback, more complicated grammatical structures and overall writing improvement are observed.

Given the complexity of the results of these studies, we designed a research project to examine the variables of instruction in two UPR English classroom settings and to investigate their effect on students' online writing performance.

Purpose of the Study

Our on-going research goal has been to describe effective teaching practices present in optimal second language technologically enhanced learning environments at the UPR. The specific objective of this study was to investigate the effect that "meaningful interactions" and "authentic tasks" may have on second language learners' discussion forums task performance and on their "on-line writing fluency."

Research Questions

The questions that guided this research study were as follow:

1. How do UPR students at the Lower and Basic Level perform in discussion forums before and after the project as measured by their online task performance, and how do they compare between levels?

2. How do UPR students at the Lower and Basic Level perform in discussion forums before and after the project as measured by their online writing fluency (i.e. content, organization, vocabulary, and grammar)?

3. Do meaningful interactions and authentic tasks improve UPR students' online writing competencies as measured by task performance and online writing fluency?

4. How do UPR Lower and Basic Level students compare in terms of online writing fluency before and after the project?

Through answering these questions the researchers will unveil information regarding effective ESL online writing teaching and learning practices.

Methodology

Learning Context

In this study we developed and implemented a strategy in two different ESL proficiency level courses that fulfill the requirement for the General Education component of the bachelor's degree. These courses emphasize and integrate an academic literature approach focused on the study of thematic topics such as migration, environment, or gender by making inter and multidisciplinary connections. In addition to the level course content, our classes include a technology component in which students interact using Blackboard's discussion forums.

Subjects

Thirty students from the Lower Level course (UPR INGL 3004) participated in this

study. Students' writing at this level shows serious deficiencies in content, organization, vocabulary, structure and mechanics. They tend to translate literally from Spanish making their writing very difficult for a non-Spanish speaking reader to understand. Students at this level also exhibit a high level of anxiety when communicating in English.

From the Basic Level course (UPR INGL 3102) twenty-five students participated. When they express themselves in writing, they make numerous errors in grammar, vocabulary, punctuation, and spelling and their ideas are poorly organized. These students communicate best on topics based on personal experiences.

Four students from Metro State University (MSU), Minnesota participated as mentors. They were graduate Technology Education majors enrolled in an Intercultural Experience Course. Their course required them to complete an international communication service work project and they would fulfill this requirement with UPR students. Although not in the field of English education, MSU students had a technology expertise using different media and software programs; thus, they could mentor UPR students in this area.

Procedure

Two sections of the Lower Level and two of the Basic Level were selected for the study. One section of each level served as an experimental group in an optimal learning environment (OLE). In this environment, we implemented an online writing strategy, where MSU mentors interacted and provided feedback to participating UPR students in online discussion forums. The other section served as a control group in a traditional computer assisted learning environment (TLE) where Spanish speaking UPR students interacted with each other in the same discussion forums but without the added benefit of feedback from a more competent other, and a real need or purpose to communicate in English, the target

language.

Six discussion forums were created and posted in Blackboard. The topics of the first three included introductions to group members, negotiations about possible stories and plans for a collaborative project, and traveling advice for MSU mentors who would visit UPR for two weeks.

While in Puerto Rico, MSU mentors worked with UPR students in an academic project. It consisted on creating, adapting and visually illustrating a story based on a classical fable or tale. The story was to reflect Puerto Rican cultural, social, and/or political realities. MSU mentors were asked to coach UPR students assisting groups in visually illustrating their stories through media technology. They were instructed to provide feedback but not to correct UPR students' errors or change their stories but rather to question them about content and stylistic choices. The professors did not intervene during this process but facilitated students' initiatives.

After MSU mentors left, they continued interacting online in the remaining forums. The content of these forums became more academic discussing relevant intercultural issues such as stereotypes, non-verbal communication, migration problems other than language, as well as acknowledgements and farewells.

The creation of a coaching relationship between MSU mentors and UPR students as they performed a collaborative academic project would theoretically increase the meaningfulness of interactions and the authenticity of the task. The researchers hypothesized that having an authentic audience and a real need to communicate ideas and concerns in English would enhance the learning environment and have a positive effect on students' online writing fluency.

Data Analysis

Responses to the first and last forums were collected and analyzed. We expected students to demonstrate online writing competency improvement by producing forum entries exhibiting high levels of task performance and online writing fluency as measured by depth of content, organization of ideas, language/ vocabulary use, and grammar/mechanics. The forum entries were assessed on these criteria by three external evaluators using two six-point scale rubrics. The rubrics' performance levels ranged from 1-False Beginner to 6-Advanced. A score of 4-Intermediate was considered a competent response to the prompt. Descriptive statistics, mean differences and probability tests were performed to analyze the data.

Results

Students' responses to the first and last forums were analyzed using the Task Performance Rubric. Descriptive statistics of the pre- and post-task scores for the control (TLE) and experimental (OLE) groups of the two levels are shown in Table 1.

Table 1. Task Performance Results

Comparison of Pre-Post Mean Scores and Probability Test Results											
Lower Level (UPR INGL 3004)						Basic Level (UPR INGL 3102)					
Traditional N=15 TLE-control			Optimal N=15 OLE-experimental			Traditional N=14 TLE-control			Optimal N=11 OLE-experimental		
Pre	Post	P	Pre	Post	P	Pre	Post	P	Pre	Post	P
3.34	3.43	.65	2.80	4.03	.00	4.04	4.51	.07	4.00	4.26	.24

A look at the mean scores of the Lower Level indicates that both the TLE and the

OLE groups improved their post task performance scores. However, while the TLE group's slight improvement was not significant (P=.65), the OLE group's improvement was significant (P<0.01).   The post task results indicate that the Lower Level OLE group significantly improved from 2.80- Beginner to 4.03- Intermediate. Interestingly, this was the starting score of the Basic Level. As previously stated, a performance level of 4 is a competent response to the prompt.

The two Basic Level groups improved from the pre- to the post task scores reported, but results of the probability test indicate that the slight improvement achieved was not significant at P< 0.05. It seems that students at this level were already competent scoring above level 4 (competent) in response to the discussion forum's pre- task prompt.   This suggests that students at this level can perform common routine expressions like introductions, acknowledgements and farewells.

Students' responses to the first and last forums were also scored and analyzed using the Online Writing Fluency Scoring Rubric.   Table 2 compares the pre- post mean score differences of the Lower Level groups in the areas of content, organization, vocabulary, and grammar.

Table 2. Lower Level Online Writing Competencies Results

Criteria (Rubric)	n	Pre Test (SD)[1]	Post Test (SD)	Mean Difference (SD)	t (probability)
Content					
Traditional (TLE)	15	3.24 (0.66)	2.97 (0.54)	-0.27 (0.84)	1.24 (p=0.24)
Optimal (OLE)	15	2.78 (0.77)	3.86 (0.75)	1.08 (0.97)	4.32 (p=0.00)
Organization					
Traditional (TLE)	15	3.30 (0.50)	3.33 (1.61)	0.03 (0.62)	1.67 (p=0.87)
Optimal (OLE)	15	3.00 (0.70)	3.92 (0.64)	0.92 (0.91)	3.90 (p=0.00)
Vocabulary					
Traditional (TLE)	15	3.14 (0.70)	3.18 (0.68)	0.04 (0.59)	0.27 (p=0.80)
Optimal (OLE)	15	2.81 (0.49)	3.55 (0.67)	0.75 (0.82)	3.51 (p=0.00)
Grammar					
Traditional (TLE)	15	3.12 (0.65)	2.97 (0.57)	-0.15 (0.56)	1.01 (p=0.33)
Optimal (OLE)	15	2.67 (0.68)	3.37 (0.57)	0.70 (0.79)	3.43 (p=0.00)
Overall Performance					
Traditional (TLE)	15	3.20 (0.55)	3.12 (0.49)	-0.09 (0.52)	0.65 (p=0.53)
Optimal (OLE)	15	2.82 (.68)	3.68 (.56)	0.86 (0.80)	4.18 (p=0.00)

As can be seen in this table, the Lower Level OLE group made significant

improvement ($P<0.01$) in all of the online writing fluency criteria. In the content criteria, for example, their scores increased from 2.78- Beginner to 3.86- High Beginner. This represents an improvement of more than one whole level. However, in the TLE group there were non-significant differences at $P<0.05$ between the pre- and post-task scores in all of the criteria. In fact, in content and grammar they did better in the pre- task (3.24 and 3.12 respectively) than in the post- task (2.97 in both cases).

Analyses of the mean differences indicate that the OLE group mostly improved in content and organization. This suggests that after the project, the Lower Level was able to communicate their ideas more coherently although they still lacked precision in their language use, in terms of vocabulary and grammar. It is important to mention that the improvement happened in just three months.

Table 3. Basic Level Online Writing Competencies Results

Criteria (Rubric)	n	Pre Test (SD)[1]	Post Test (SD)	Mean Difference (SD)	t (probability)
Content					
Traditional (TLE)	14	3.79 (0.74)	4.17 (0.84)	0.39 (1.17)	1.24
Optimal (OLE)	11	3.73 (0.45)	4.06 (0.58)	0.34 (0.29)	(p=0.24)
					3.88
					(p=0.00)
Organization					
Traditional (TLE)	14	3.77 (0.94)	4.47 (0.78)	0.70 (1.20)	2.19

Criteria (Rubric)	n	Pre Test (SD)[1]	Post Test (SD)	Mean Difference (SD)	t (probability)
Optimal (OLE)	11	3.55 (0.54)	4.10 (0.67)	0.55 (0.53)	(p=0.05) 3.41 (p=0.00)
Vocabulary Traditional (TLE)	14	3.90 (0.95)	4.36 (0.95)	0.46 (1.24)	1.38
Optimal (OLE)	11	3.61 (0.42)	4.13 (0.94)	0.52 (0.72)	(p=0.19) 2.39 (p=0.04)
Grammar Traditional (TLE)	14	3.91 (0.87)	4.26 (0.93)	0.35 (1.06)	1.24
Optimal (OLE)	11	3.45 (0.67)	4.11 (0.66)	0.66 (0.64)	(p=0.24) 3.42 (p=0.00)
Overall Performance Traditional (TLE)	14	3.84 (0.81)	4.31 (0.75)	0.47 (1.03)	1.71
Optimal (OLE)	11	3.58 (0.46)	4.10 (0.65)	0.52 (0.42)	(p=0.11) 4.04 (p=0.00)

Basic Level students' responses to the first and last forums were also scored and analyzed using the Online Writing Fluency Scoring Rubric. Table 3 compares the pre-post mean scores of Basic Level students in the TLE and OLE groups on the four online writing criteria observed. As can be seen in this Table, there was significant improvement ($P<0.01$) in all of the criteria of the OLE group. In the grammar criteria, for example, the scores increased from 3.45- High Beginner to 4.11-Intermediate. These students improved from one level to the next achieving a performance level of 4 which was set as a competent response to the discussion forum prompt. However, while the TLE group slightly increased in all of the criteria; the changes were non-significant. As can be noted in Table 3 although the TLE group scores were all higher in all of the criteria than those of the OLE; their improvement turned out to be non-significant below the 0.05 probability level.

Analyses of the mean differences suggest that after the project students at this level were able to communicate their ideas with better command of the language. Specifically, they mostly improved in grammar, which according to this Level students' profile is the skill they needed most. Like with the Lower Level students, the exhibited language fluency growth was evident in only three months.

Graph 1. Online Writing Level Comparison Mean Differences Results
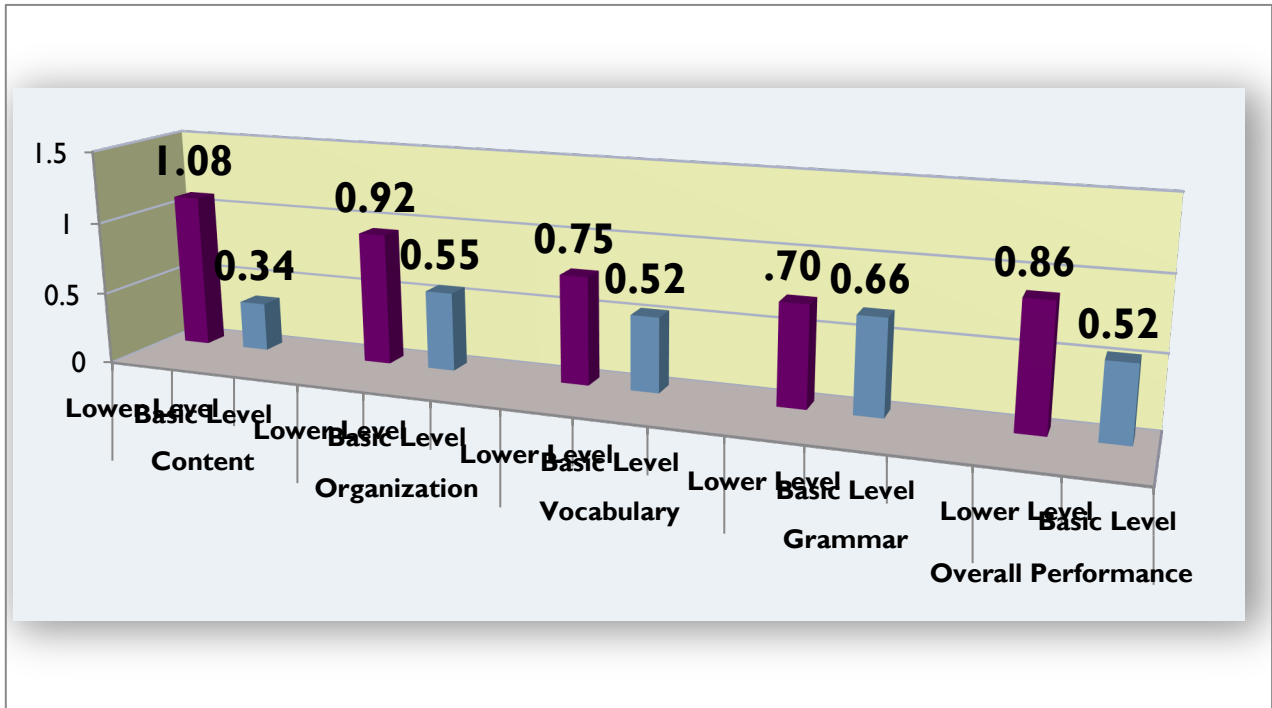
Graph 1 compares the two levels improvement in each of the criteria. As illustrated by this Graph, the criterion in which the Lower Level improved the most was different from that of the Basic Level. Specifically, the Lower Level mostly improved in how to communicate their ideas as measured by content and organization. On the other hand the Basic Level mostly improved in the quality of their writing, as measured by grammar and organization. Therefore, students' learning through technology differs depending on their language proficiency levels.

In terms of content, the Lower Level students' responses to the first online discussion forum prompt did not exhibit knowledge of the topic, their ideas seemed learned patterns and showed little originality or creativity. In the last forum these students' responses showed

ideas that, although still somehow underdeveloped, were rudimentarily supported and explained. On the other hand, the Basic Level's responses to the first online discussion forum prompt included sentence structures that occasionally obscured meaning. However, in their responses to the last forum's prompt there were less errors in grammar and these did not obscure meaning.

Conclusions and Recommendations

Online communities of learners are a reflection of today's society. Given the diversity of its members, interactions are enriched, meaning is negotiated, and knowledge is constructed and/or transformed. In this context, interdisciplinary connections are possible and contribute to members' understanding and interpretation of their everyday life experiences, socio-cultural context and in general, the global community which they form part of. In the GE English class, discussion forum prompts related to topics covered in class like war, migration, and environment, help students connect and expand class content. After discussing the poem *Traveling through the Dark* by William Stafford related to man's relationship with nature, for example, a possible online discussion forum prompt would ask students to narrate an experience where they witnessed an animal road-kill, their reaction and that of others towards this environmental hazard, what moral issues are awakened by this situation, and/or what they could propose to deal with the social problem of stray animals in Puerto Rico. Online discussion forums empower learning community members because they can interact freely and actively in debates, acknowledge and learn from others' contributions, and have more time to elaborate their answers than in a face-to-face classroom discussion.

The effectiveness of discussion forums greatly rely on prompts that are challenging, engaging, pertinent, and carefully geared towards achieving the interdisciplinary connections

pursued. When developing prompts in English, we must also consider language proficiency level differences. The results of this study revealed that students at different levels of L2 proficiency take advantage of technology learning in different ways. One implication of this finding is that forum prompts must be created and/or adapted to the students' level, and expected outcomes must be adjusted accordingly.

Another result of our study, strongly suggests that integrating the variables of authentic tasks and meaningful interactions using discussion forums in a GE English class has a positive effect on students' online writing competencies development.

Authentic tasks require learners to do something with language that represents the same challenges they will face in their academic and professional experiences. Electronic discussion groups, like blogs, provide an space for scholars and professionals of similar interests to participate in a critical dialog about a topic and share resources. Discussion forums provide and interactive open board medium where educators can create an in-class analogous outside the classroom academic and professional available resources. Instead of teaching writing or about writing in the L2, teachers that believe in a communicative approach to language teaching will place the focus on the task at hand. In our case, the main task was to actively and effectively participate in discussion boards where each forum had a specific purpose.

For example, in the forum where students introduced themselves to assigned group members with whom they would collaborate to accomplish a project, to be effective, they not only had to create a good impression, but they had to identify their assets and possible contributions to the group. To accomplish this goal, students used the linguistic structures and vocabulary they had to communicate their ideas. The interlocutors needed each other to accomplish the

task; therefore, they exchanged utterances back and forth until they understood each other. In this context, problem solving and task accomplishment becomes the center of students' attention and SLA and learning occurs in a natural way.

In addition to authentic tasks meaningful interactions optimize a technologically enhanced language learning environment. Although peer interactions in discussion forums at the Lower and Basic levels of English proficiency may encourage student engagement and participation, they do not necessarily contribute to online writing improvement. In some cases, when Lower Level students were only provided feedback from peers with a similar or a lower language proficiency level, their writing competencies got worse. Thus, when students don't have feedback or models to follow, they are not motivated or challenged to write in English. There seems to be a tendency among low level students to reinforce language errors among themselves, thus discouraging language improvement.

The results of this study suggest that having feedback from a more competent other has an important effect on writing improvement. Interestingly, in both levels the OLE groups which had a more competent other significantly improved in all of the criteria. However, finding mentors or higher language proficient peers willing to interact with students in UPR classrooms is a challenging situation. Online discussion forums provide one strategy to solve this problem. By developing partnerships between Higher Education Institutions, such as the one established with MSU, effective online language learning communities can be created. Another way to overcome this challenging situation is by joining efforts with English Teaching and/or English majors, or even by developing inter-level projects. We strongly recommend that if writing competencies development is the goal, a mentor, higher language proficiency level peer, or the teacher must provide feedback to students' online writing
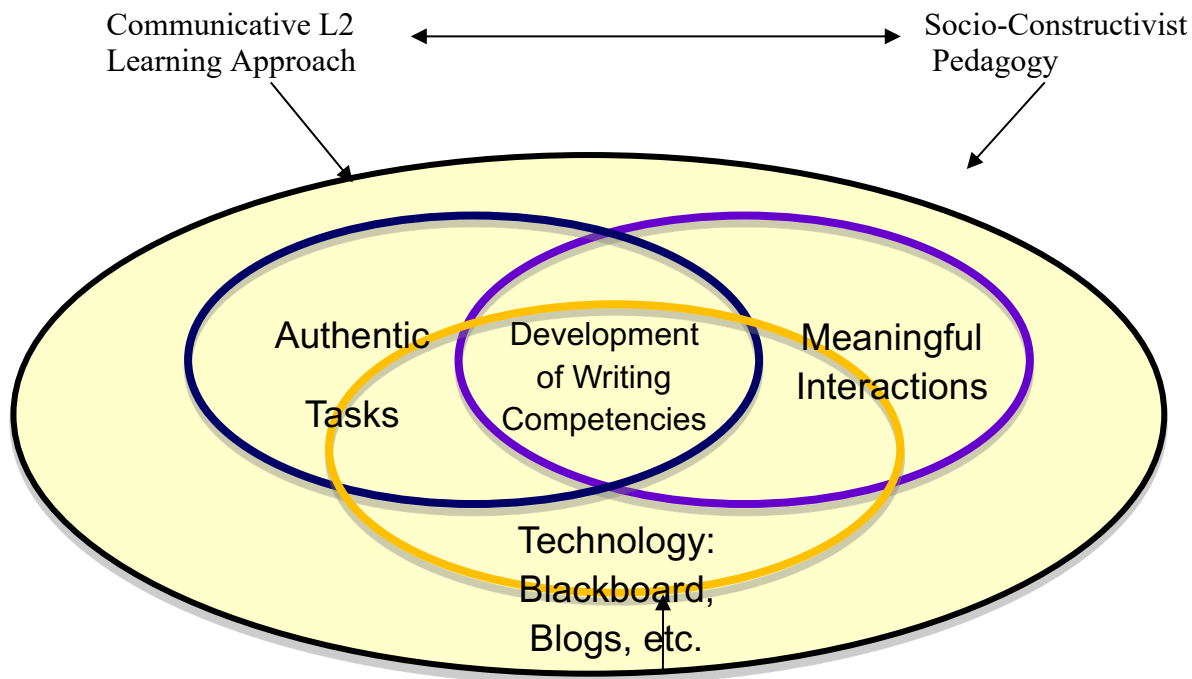
contributions.

Besides feedback, educators must explicitly provide instruction, modeling and guidance to help students switch from the informal online writing they use in chatting, texting and social networking to the more formal register required in academic online_writing contexts. Students do not automatically transfer what they do in an academic setting to online discussion forums; their tendency is to transfer what they do in online social settings. For example, some student responses to the first forums used informal inappropriate expressions for an academic audience such as "I am a cute boy." and smiley faces. Students also need focused instruction in how to apply writing process strategies when responding to the forum's task. For example, some of them submitted their initial draft, others relied on cut and paste from information found online or wrote their ideas in Spanish and used translators instead of producing creative language. Appropriate and ethical online writing behavior must also be discussed.

A model for the integration of technology in the GE English Curriculum

Given that the results of our study evidenced significant improvement in all of the writing criteria and the review of the literature confirms our findings, the researchers propose that ESL educators consider a model based on a theoretical and methodological curriculum development framework when integrating technology to their classes. Classroom teaching practices that integrate technology should consider the systemic nature of instructional variables.

Figure 1. Meaningful Online Interactions and Writing Improvement
(MOIWI)

Communicative L2
Learning Approach

Socio-Constructivist
Pedagogy

Authentic

Tasks

Development
of Writing
Competencies

Meaningful
Interactions

Technology:
Blackboard,
Blogs, etc.

I n t e r d i s c i p l i n a r y   C o n t e n t

L2 Teaching and Technology

Our proposed ESL educational model, Meaningful Online Interactions and Writing

Improvement (MOIWI) stems from the findings of this research study and its components

function as a system. As illustrated in Figure 1, during ESL online writing activities three

simultaneous processes must take place: authentic tasks, meaningful interactions, and

technology. These three processes work within the context of the fourth: interdisciplinary

content. These four components work together and influence the goal: development of

online writing competencies. All of these five components are systemic, revolving, fluid, interrelated and bidirectional, thereby interactively and interdependently constructing and fostering online writing competencies.

When using this model, educators must first clarify what their expected long term learning goals are. In our case, these goals were the development of online academic writing competencies students could use to effectively participate in communities of learners outside the classroom. An in-class analogous set of outcomes (e.g. improved writing fluency as measured by selected criteria and willingness to participate in class discussion forums) must then be identified to assess performance. Rubrics to measure the identified criteria must be adapted or created to verify that the expected outcomes or levels of performance have been achieved.

Once this is established one must examine the teaching and learning principles that guide the practice. We examined and cross referenced principles from socio-constructivist pedagogy and the communicative ESL teaching and learning approach. From the resulting framework, a list of best practices or optimal learning environment conditions emerged. The next step would be to examine students' characteristics (e.g. language proficiency and affective filter level), the classroom's culture and the learning environment (e.g. technology mostly used for social networking and unnatural use of English). In our case we discovered that including authentic tasks that required the use of English to accomplish a specific purpose, and including meaningful interactions through feedback from a more competent other would optimize the learning environment.

It is at this point that educators should analyze the types of technologies available and decide

which will best facilitate the implementation of the selected instructional method, the development of the selected competency, and the achievement of the long term goal. We selected discussion forums, a type of asynchronous technology, given the benefits they presented for our purpose after considering all of the above.

In conclusion, the elaboration of this model allowed researchers to unveil information about a GE English course at the UPR and confirmed guiding theory regarding the integration of technology in the ESL classroom. It bridges the gap of research based guidance to make curriculum decisions when integrating technology in ESL courses; thus, meeting the needs of the students and the demands of the academia. Specifically, students' academic writing and technological competencies are developed while they actively participate within learning communities of their fields of study outside the classroom walls. This model can be adapted to integrate technology in other disciplines that seek to develop GE competencies, which are interdisciplinary by nature.

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