THE EFFECTS OF ELECTRONIC MAIL ON SPANISH L2 DISCOURSE

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ABSTRACT

This paper analyzes the effectiveness of using e-mail as a tool to promote foreign language learning in and out of the classroom. The study identifies the following features of the foreign language generated through the electronic medium, some of which have already been observed in previous studies: (a) greater amount of language; (b) more variety of topics and language functions; (c) higher level of language accuracy; (d) more similarity with oral language; (e) more student-initiated interactions; and (f) more personal and expressive language use. These observations are expected to expand the generalizations made in previous studies, and more finely tune theoretical propositions, about how to integrate electronic communication in the classroom in order to facilitate foreign language learning.

The observation of these features, together with the tentative explanations of the cause for their appearance, is expected to contribute to a better understanding of the language learning processes that result from the use of electronic communication in the context of a foreign language course. It is also hoped that further research in this topic confirms the prediction that foreign language learners exposed to this learning tool would become lifelong learners of the foreign language beyond the classroom context.

INTRODUCTION

Computer-mediated communication (CMC) has recently made its way into the foreign language field as an innovative way to increase foreign language use in the classroom. While CMC suffers from a lack of extensive theoretical research, some studies have attempted to generate hypotheses for future research by exploring and identifying specific features of foreign language generated through the electronic medium (Warschauer, 1997). Others have successfully described particular cases of CMC use in the teaching and learning of foreign languages, thereby shedding some light on the probable causes of those features (St. John & Cash, 1995; Wang, 1994). The present study seeks to observe whether these features, and/or additional ones, can also be identified in a group of first- and second-semester students learning Spanish as a foreign language in a mid-size, southern university. The observations resulting from this study are expected to expand the generalizations made in previous studies, and more finely tune theoretical propositions about how electronic communication can be integrated in the classroom to facilitate foreign language learning (Warschauer, 1997).

An additional goal of the present study is to predict some aspects of foreign language learner behavior resulting from the extension of students' roles as classroom learners into a wider perspective as world communicators. Using language both within and beyond the school setting is one of the five goals established by the recently developed Standards for Foreign Language Learning -- the "communities" goal.¹

According to the authors of this document, "Applying what has been learned in the language program as defined by the other standards, students come to realize the advantages inherent in being able to communicate in more than one language and develop an understanding of the power of language" (ACTFL, AATF, AATG, & AATSP, 1996, p. 60). Communicating in a foreign language through the Internet will not only have a great motivational effect on the students (e.g., see Beauvois, 1995; Meunier,
1996; Warschauer, 1996), but may also ultimately improve the students' foreign language writing and speaking skills as they send and receive e-mail messages. By providing additional possibilities to receive input and produce output in the foreign language, communicating through the electronic medium can establish a rich context for language development to occur. According to Vygotsky's Zone of Proximal Development, language learners communicate by negotiating meaning, thereby creating an environment "to learn language, learn about language, and learn 'through' language" (Warschauer, 1997, p. 471). This idea is at the core of the sociocultural perspective of CMC, a conceptual framework suggested by Warschauer to encompass the purposes of students' language-related collaboration.

The text-based nature of the language produced through CMC offers additional advantages for language learning by making the written performance available for detained revision and, hence, further learning. This aspect of CMC has been identified by Warschauer (1997) as one of the characteristic features of CMC distinguishing it from other communication media. Other features of CMC include the possibility of long-distance exchanges, and that of using hypermedia links. In the world of the beginning foreign language classroom, however, all these CMC features may not appear at the same level of language (and computer) proficiency. The kind of interaction analyzed in this study --instructor/student e-mail messaging-- may serve as a transition toward the use of foreign language in a real-cybernetic-world context.

The LINGUIST listserve recently included a discussion dealing with the subject "Lingua Franca for Electronic Communication." While some participants pointed out that global communication via the Internet offers an opportunity to learn and use other languages (Grimley-Evans, 1994), others argued that the Internet serves more to propagate the global dominance of English (Ao, 1995; Paolillo, 1995).

A mere look at the Spanish soc.culture newsgroups will show that there may be a sufficient amount of Spanish on the Internet for one, depending on his/her initial language proficiency level, to conceivably learn some Spanish through online interaction. Although the amount of English used on the Internet may be greater than other languages, foreign language students who want to learn and use other languages may do so by simply connecting to the right links. Some transitional first steps are needed, however, and this is where foreign language teachers come into play. The initial opportunities to interact in the foreign language via electronic communication, as offered to students by their foreign language teachers, may provide the necessary first steps to render learners capable of navigating the Internet autonomously in a foreign language.

**METHODOLOGY**

**Subjects**

In the present study, 50 students of first and second semester Spanish at the University of Southwestern Louisiana were offered the opportunity to increase their participation grade by communicating in Spanish with their instructor via e-mail, whenever and as often as they wanted, and about any topic of their choosing. By making participation voluntary, individual students selected themselves as the most representative of the phenomena under study, whose interaction would provide information-rich data. By focusing on individuals who manifested the desired behavior intensively, the identification of e-mail language features was facilitated, and the observations would prove more meaningful (Marshall & Rossman, 1995).

The subjects' participation was followed longitudinally over two semesters. Their global proficiency level at the beginning of the intervention was that of a typical beginning foreign language college student (equivalent to ACTFL Novice Low-Mid levels), and at the end of the second semester they had achieved levels equivalent to the ACTFL Intermediate Low level. Both the students' and the instructor's e-mail messages were systematically saved in a mailbox, which was consequently saved to a file for ease of retrieval. Messages were further organized by participant, chronologically ordered, and paired up with the
corresponding instructor's responses. A hard-copy printout of each set of instructor/student interaction facilitated the observation and analysis of language patterns.

Procedure

The interaction was set in motion by the instructor sending a general message in Spanish to each one of the students around the second week of class, to which students responded individually. The initial message was kept short and simple, since they could only manipulate formulae or learned chunks of language (messages such as "Hello, how are you?" "I'm okay, thank you." "See you tomorrow in class" were typical at this stage). But as soon as new vocabulary and grammar were introduced into the regular class lessons, the messages soon became more personalized, dealing with family matters and class schedules, for example. Although all the students in the classroom were introduced and exposed to the new language, those choosing to participate in the e-mail dialogue journal activity had further opportunities to put into practice that language in a real communicative and meaningful way. As the students' messages became more elaborated, characteristics were noticed in their written performance in Spanish that were absent not only from the students' regular in-class writing assignments, but also from the characteristics observed in the written performance of students at similar proficiency levels, as observed, albeit impressionistically, in previous experiences with paper-and-pencil dialogue journals. These observations are confirmed by Wang's (1994) comparison of dialogue journals written via e-mail with dialogue journals produced on paper. The writing excerpts offered herein are some unedited samples of the students' messages in which these characteristics could be observed.

Electronic Dialogue Journals

The written interaction described below is a CMC version of traditional dialogue journals. Dialogue journals were used initially in L1 (English freshman composition) and ESL classes, and later in foreign language classes, as a successful writing technique. The benefits of using dialogue journals in the classroom have already been reported elsewhere (Barba, 1993; Martínez-Lage, 1993; Peyton & Reed, 1990; Peyton, Staton, Richardson, & Wolfram, 1990): Students establish a written "dialogue" with the instructor about a topic of their choice, providing a very specific audience/reader and a purpose for communication which, according to the cognitive-process model of writing developed by Flower and Hayes (1981), are necessary components of the writing process. The instructor's responses act as models of accurate language, so grammatical corrective feedback is provided automatically. This covert form of correction has been shown to have a positive effect on L2 students' writing (Semke, 1984). Grammatical accuracy can then be overtly addressed in regular in-class writing activities, allowing the dialogue journals to be a freer activity.

Students benefit from the advantages of a safe writing environment to communicate their messages while maintaining a conversational format. It has been observed (Martínez-Lage, 1993; Peyton et al., 1990) that the language produced by L2 students in dialogue journals is as complex as, and sometimes more accurate than, that produced in teacher-assigned compositions. Furthermore, the use of dialogue journals in the foreign language classroom has been found to increase students' oral fluency (Barba, 1993). Thus, the use of dialogue journals holds potential for improving both writing and speaking skills in the foreign language.

Traditionally, dialogue journals are an in-class, paper-and-pencil activity. The electronic version of dialogue journals carries the same benefits mentioned earlier while incorporating the many advantages of CMC. Wang (1994) observed that using the electronic medium to conduct dialogue journals in her intermediate ESL class had additional advantages over paper-and-pencil dialogue journals. She observed that a group of ESL students using e-mail for their dialogue journals wrote more per writing session than did the paper-and-pencil group, asked more questions, used more language functions, and adopted a more conversational tone in their language. Some of these characteristics had been already observed in L1
CMC interactions (Ferrara, Bruner, & Whittemore, 1991; Maynor, 1994), and were also observed in the Spanish language produced via e-mail by the subjects in the present study.

**FINDINGS**

As far as the dialogue journal format is concerned, the following characteristics were identified in this study as being more beneficial in the electronic format than in the paper-and-pencil format.

**Enhanced Quality of Participation**

The dialogue journal activity does not necessarily have to involve exchanges between all the students in the classroom. Instead, participation can be voluntary. By making it a voluntary activity, the exchange becomes a spontaneous one. Baron (1984) points out that one of the most salient social effects of computer-mediated communication is a heightened degree of participation over face-to-face communication. She also notices that some computer users may feel more comfortable and volunteer more complete and accurate information than when interacting in face-to-face conversations. The implications that this bears in foreign language communication are obvious, and were particularly noticeable in the subjects of this study. The e-mail messaging gave some of the shy students, who would never initiate an open exchange, the opportunity to communicate in Spanish without having to face the embarrassment of making a mistake in front of the class. In fact, the level of creativity, confidentiality, and honesty exhibited in the messages generated by these types of student, when compared to those from more outgoing and participative students, was surprising.

Because of the asynchronous nature and one-on-one format of e-mail, it is a modality that best suits the dialogue journal format. However, its characteristics are more appropriate to fit the situation of beginning foreign language learners since they are allowed to tailor the writing situation to their own pace and motivation. Instruction involving interaction between other students in the classroom may result in hindered participation (Berge, 1994), and in some cases, as mentioned by Warschauer (1997), may have negative effects on classroom interaction. Restricting the social interaction to the instructor, as in the case of dialogue journals, may encourage the shier students to participate. In addition, this limitation can result, at least at the beginning level, in a greater exposure of learners to accurate input and corrective feedback from the instructor, which is unavailable in group interaction. In the electronic medium, these beneficial effects were enhanced as witnessed by the quantity and quality of the target language produced by the participants versus that observed during previous experiences with paper-and-pencil versions of dialogue journals.

**Time/Space Management**

With electronic dialogue journals, the writing activity usually takes place out of the classroom whenever the students can access a computer terminal. Students can also take their own time writing messages. An important observation was that the students who had a terminal at home wrote longer and more elaborated messages than those who had to use the university terminals. This physical and psychological distancing from the school setting allowed for a greater variety of topics focused not necessarily on academic issues, but rather on topics of a more personal and mundane nature. Students who were forced to use the university terminals were probably more pressed for time or felt less comfortable sitting in a campus lab; consequently, they wrote less and about fewer topics, usually dealing almost exclusively with school matters. Interestingly, when the at-school students had the opportunity to use a friend's at-home terminal, they wrote longer messages similar to the ones written by their at-home peers.

Additional benefits of the electronic format over the paper-and-pencil format of dialogue journals is that instructors will not have to respond to 20-30 notebooks every time they collect the dialogue journals. Instead, they can answer the students' messages at their own pace, whenever they have time to log on. Furthermore, no class time is being consumed.
The capability of e-mail to be stored for later attention (Ferrara et al., 1991; Murray, 1988) becomes an obvious advantage to foreign language learners. Personal communications with the subjects revealed that many of them would save the instructor's messages for when they had more time to re-read them and consult references before answering. Baron (1984) mentions some other advantages, such as reduced distractions and the opportunity to contemplate as well as reformulate and correct text. Murray (1988) reasons that "the terminal can provide an integrated work environment. . . because of the time delays and the lack of need to keep eye contact or provide backchannel cues" (p. 358). Some of the subjects reported the freedom to look up words and rules in dictionaries and textbooks in order to monitor their accuracy before sending messages. These opportunities were reduced in the paper-and-pencil version of dialogue journals due to time and situational constraints.

CMC for Second Language Learning

Studies on the use of CMC with students learning a first language have pointed out numerous instances of CMC affecting the quality of the language produced, resulting in discourse somewhat different from both written and oral communication. It was therefore decided to investigate whether the characteristics observed in my L2 learners' written samples had any correlation with those observed in L1 CMC studies. If such a correlation was observed, it might be suggested that universal acquisition processes were at play since L2 processes could be said to parallel L1 ones. Therefore, the use of e-mail in the foreign language classroom may be proposed to enhance foreign language acquisition.

Some of the observations in L1 studies were compared to the data collected from the subjects in this study, and differences and similarities were found as described below. There were two general observations: (a) Students took advantage of the opportunities offered by the electronic medium to develop conversation-like language which they could not develop in regular in-class speaking activities for reasons of shyness and/or fear of making mistakes; and (b) they increased their target language output processes in ways that were more conducive to language acquisition than those offered by regular paper-and-pencil dialogue journals. The result was a language modality that shared both the spontaneity and freshness of spoken language and the accuracy and coherence of the written modality.

Linguistic Correlates

E-mail has been defined as a subtype of CMC in which mail can be sent to a single, known interlocutor who is not immediately available (Baron, 1984); that is, communication is asynchronous. Many CMC studies emphasize the benefits of synchronous versus asynchronous interaction. In his comparison of the discourse produced by two groups of second-semester French students, Kern (1995) found an increase in the quantity of language produced by the group using Daedalus InterChange (a computer network application that enables synchronous written interaction) over a similar group that conversed on the same topic.

In addition, he noted differences between the groups in the characteristics of the language produced. Some of these characteristics were favorable; for example, a greater variety of discourse functions combined with a decentralization of teacher authority translated into enhanced student participation for the InterChange group. On the other hand, this same group devoted less attention to grammatical accuracy and demonstrated less coherence and continuity in the discussion. These latter features were the result of the synchronous nature of the medium since "for many students, the urgency of the communicative flow demands that they pay less attention to the formal accuracy of their writing" (Kern, 1995, p. 458).

Not only were these less desirable features not observed in the e-mail messages analyzed in this study, but the very nature of e-mail itself prevented them from occurring. Although there were some cases of less accurate productions that could have been the result of the urgency of the communicative flow, like in the case of Kern's subjects, or simply of communicating in a foreign language, most of the students in this study, as was noted above, took their time to consult references and edit their messages before sending
them out, resulting in greater grammatical accuracy and coherence of ideas. The observed higher level of accuracy may also be due to the fact that students were creating short sentences with simple grammar, which allowed for easier, and more successful, self-correction. Conversely, a decrease in the relative grammatical accuracy was observed towards the end of the two-semester study in students who, having won confidence in their use of the language, wrote longer messages and about more varied topics. These circumstances might have forced them to use more complicated grammar while at the same time, and because of their greater confidence, might have decreased self-monitoring. St. John and Cash (1995) observed a similar phenomenon in a highly motivated German learner whose spectacular progress during the first six weeks decreased in terms of accuracy in the second period, eventually leveling off towards the end of the observation.

The use of references was particularly obvious when messages included vocabulary items that were not part of the syllabus. For example, one student used the phrase *segar la hierba* (mow the grass), which had not been introduced in class nor included in the textbook. In this case, the student had obviously used a dictionary or asked a native speaker.

E-mail has been said to represent a convergence of both oral and written modalities (Maynor, 1994). Some of the features that make writing through e-mail more like speech are the lack of capitalization, the use of icons (representing smiles, winks, etc.), the use of simplified or phonetic spelling, and punctuation, specifically, exclamations. In the Spanish messages generated by the students observed, capitalization was religiously present at the beginning of every sentence; students probably felt the need to maintain a certain level of formality since, after all, they were communicating with their instructors, and some degree of tacit judging was expected. None of the students used icons to express paralinguistic information, probably because their use signals a certain level of familiarity with the media which the majority of the subjects did not have. And since Spanish spelling is already phonetic, no simplification took place. But they did use exclamations more so than was observed in the regular writing assignments.

The use of CMC influences both what ideas can be expressed and how these ideas are expressed (Baron, 1984). This includes an increase in the time for reflection, grammatical complexity, and logical coherence. Even though these characteristics are shared by other written modalities, when students utilize dialogue journals through the interactive medium of e-mail, the result is a more natural-sounding conversational style.

Syntactic simplification, as one characteristic of "reduced register," has also been observed in L1 CMC discourse (Ferrara et al., 1991; Maynor, 1994; Murray, 1988). This form of simplification seems to serve the purpose of concentrating on the content of communication, but it was not found in the L2 Spanish data. The language of the beginning Spanish students was already too simple to allow for further simplification; however, the same principle of focusing on content rather than on form was still present, and the students’ initially simple language became more efficient.

Still another linguistic correlate of CMC, observed by Ferrara et al. (1991) in L1 and by Wang (1994) in L2 (ESL), is the use of an increased number of questions. The fact that students felt free to send messages at any time allowed them to initiate a new conversation topic not necessarily related to the original message. Some examples of the questions addressed to the instructor were as follows:

<table>
<thead>
<tr>
<th>Spanish Question</th>
<th>English Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>¿Le gusta ir al cine?</td>
<td>Do you like going to the movies?</td>
</tr>
<tr>
<td>¿Te gusta comprar cosas?</td>
<td>Do you like buying things?</td>
</tr>
<tr>
<td>¿Qué es tu libro favorito?</td>
<td>What is your favorite book?</td>
</tr>
<tr>
<td>¿Qué comida te gusta?</td>
<td>What food do you like?</td>
</tr>
<tr>
<td>¿Cómo es mi español? ¿Es mejor?</td>
<td>How is my Spanish? Is it better?</td>
</tr>
<tr>
<td>¿Por qué no asistes al cine (de) español?</td>
<td>Why didn't you go to the Spanish movie?</td>
</tr>
</tbody>
</table>
None of these questions were related to the topic of the original message, but rather to conversations previously held in class. According to Black, Levin, and Mehan (1983) and Murray (1988), e-mail facilitates multiple parallel threads of discourse which, in the case of the L2, allows the students not only to respond to the instructors' messages, but also to initiate new conversation topics on their own. The asynchronous nature of e-mail, thus, fostered the enrichment of the communication transaction.

**Discourse Management**

Condon and Cech (1996) observed that participants using their native language in computer-mediated interactions use discourse management strategies that are similar to those used in face-to-face interactions. Furthermore, it seems that communicators encode management functions more explicitly when using the computer-mediated mode than when engaging in face-to-face interactions. Thus, it would be logical to think that this mode of communication would have a similar effect on foreign language discourse. One of Condon and Cech's (1996) findings is that discourse markers such as "ok" and "well" play an important role in orientation management. Likewise, an extensive use of bueno and pues was found in the Spanish data of this study, the equivalent to the "ok" and "well" markers mentioned by Condon and Cech, signaling the end of a turn:

- **Bueno, hasta mañana.**  
  Ok, see you tomorrow.
- **Pues, tengo que ir a mi casa. . . .**  
  Well, I have to go home. . . .
- **Pues, hasta el lunes.**  
  Well, see you on Monday.

In addition, Baron (1984) mentions that e-mail offers the opportunity to reformulate previous messages. The actual absence of the message that students are answering lends authenticity to the conversational format in the sense that they have to recapitulate what was said in the previous message by resorting to discourse management strategies. Cases in which the students restated the questions posed in the instructor's answer illustrate this:

- **¿Para el futuro? Pienso casarme.**  
  For the future? I plan to get married.
- **¿Su esposo está muy triste porque los Cowboys ganan el Superbowl?**  
  Is your husband sad because the Cowboys won the Superbowl?
- **¡Estoy muy contenta!**  
  I am very happy! I like the Cowboys very much!
- **¡Me gusta[n] los Cowboys mucho!**  
  Cowboys very much!

However, in some cases the restatement is not necessary since the immediacy of the exchange provides the interlocutors with the necessary context:

- **Mi abuela está mucho mejor, gracias.**  
  My grandmother is much better, thank you.

In other cases, such a strategy was reduced to a minimum, and the only discourse marker was a simple "Sí, . . ." (Yes, . . .), which indicates that the student is answering a question posed in a previous message:

- **Hola, profesora González: Sí, vivo en un dormitorio**  
  Hello, Professor Gonzalez: Yes, I live in a dorm.
- **Hola, profesora: Sí, yo tengo buenas notas en inglés y en matemáticas.**  
  Hello, Professor: Yes, I have good grades in English and Math.
- **Sí, vivo con mi familia durante [los] fin[es] de semanas [sic].**  
  Yes, I live with my family on the weekends.

A few other times it was a "No, . . .", and these cases proved to be an opportunity for the student to elaborate and correct the wrong assumption embedded in the question. In the following case, the student is responding to the question about having a pet:

- **No, no tengo ningún animal en mi casa de apartamentos. No tengo lugar para animales. Quiero un perro. Me gusta el "pit bull". Te gustan las gatas mucho ¿no?**  
  No, I have no pets in my apartment. I don't have room for animals. I want a dog. I like the "pit bull". Do you like cats too?
No, I do not have a pet in my apartment. I do not have room for animals. I want a dog. I like pit bulls. You like cats a lot, right?

However, at other times, no discourse marker signaling a change in the conversation thread was present, even when the different threads were obvious from the sudden shift of topic:

_Hola, Manuela:_
¿Cómo estás? Estoy bien... Mi especialidad es Antropología... Trabajo en "Service Chevrolet"... Vivo con mi familia en Lafayette.

Hello, Manuela:
How are you? I am fine... My major is Anthropology... I work at "Service Chevrolet"... I live with my family in Lafayette.

This lack of discourse markers should not be interpreted as a weakness in the writing. After all, the respondent has placed himself as co-participant in a conversation that resembles an oral interaction. If the same exchange were in fact taking place orally, what looks like a series of unrelated sentences would intertwine perfectly well with the questions being answered. In other words, the electronic mode is freeing the student from the linguistic constraints that written language imposes upon the writer, and is allowing him to practice a spoken modality. At any rate, the need to address different conversational threads encourages the student to re-read the instructors' messages; as a result, continuous input is being reinforced.

**Phatic and Expressive Discourse**

CMC discourse in the L1 seems to show a reduction, and even a complete absence, of the phatic function (Baron, 1984; Murray, 1988; Veselinova & Dry, 1995). Accordingly, within the span of two semesters, my students went from formulae such as Buenos días, profesora González-Bueno (Good morning, Professor González-Bueno) to Hola, profesora (Hello, professor), Hola, Manuela (Hello, Manuela), or even ¿Qué pasa? (What's up?), indicating a progressive reduction from formal to less formal register. However, in contrast to L1 studies, these interpersonal formalities never disappeared. In addition to the greetings mentioned, a variety of leave-taking formulae were always present, such as Hasta luego (See you later), Adiós (Good-bye), or even the very informal Nos vemos (See you).

While studying CMC at the workplace, Murray (1988) observed that in the L1, "Phatic communication rarely occurs by itself." In the academic setting of this study, phatic expressions did occur by themselves in the L2 Spanish data, especially among early beginners. Messages like the following were not unusual:

_Hola, profesora Manuela: ¿Cómo estás?_  Hello, Professor Manuela: How are you?
_Yo soy [sic] bien. Hasta mañana._  I'm fine. See you tomorrow.
_Hola, señorita González: ¿Cómo está usted?_  Hello, Miss Gonzalez: How are you?
_Yo muy bien. Mucho gusto._  I'm fine. Pleased to meet you.
_Hola, buenos días. ¿Cómo está usted?_  Hello, good morning. How are you?
_Adiós._  Good-bye.

This may be due to the fact that the students did not have much language at their disposal at that point, which may also explain why the students never eliminated their greetings and leave-taking formulae. These short, early, "empty" messages may be what Murray (1988) refers to as "unfocused" discourse; that is, messages without a purpose. However, within the context of foreign language learning, simply practicing the little bits of language becomes a purpose in itself, and highlights the participation enhancement effect that e-mail has on students.
Phatic discourse not only includes greetings and leave-taking formulae. Any expression intended to ensure that communication is still taking place can be considered phatic. The following expressions were found in the L2 Spanish data:

- Tienes una gata ¿verdad?
- Te gustan las gatas mucho ¿no?
- Sammy es mi cuñado, pero mi hermano... ¿comprende?
- Creo que tengo una B ¿Qué piensa?
- Con frecuencia leo novelas románticas ¿y tú?

You have a cat, right?
You like cats, don't you?
Sammy is my brother-in-law, but he is my brother... Do you understand?
I think I have a B, what do you think?
I often read romantic novels, and you?

The students' expectations of a more immediate or at least more prompt response from the instructor through the electronic medium might have increased the necessity to use phatic questions to keep the conversation going. These questions lend immediacy to the transaction, and their presence in the Spanish data further reinforces the idea that CMC is closer to oral communication.

Expressive Discourse

It was pointed out earlier that the use of exclamations is used more often in e-mail than in other forms of writing (Maynor, 1994). The use of capitalized words to express screaming and the repetition of the same key for emphasis are also characteristics of e-mail discourse (Maynor, 1994). All three features were observed in the L2 Spanish data:

- ¡¡¡Muy fácil!!
- ¡¡¡Por favor, no me das un F!!!
- ¡No trabajo [el] fin de semana!!!!!!!!!!!!
- ¡HOLA!
- ¡IR TIGRES!
- NO quiero...
- ¡...muuuuuuy mal!

Very easy!!
Please, don't give me an F!!!
I'm not working this weekend!!!!!!!!!!!
HELLO!
GO TIGERS!
I DON'T want to...
. . .veeeeeeeery bad!

Expressive discourse was not limited to typographical features, but also, and most importantly, to coined expressions that students learned in the regular classes, or by looking them up in reference books, or even by literally copying them from the original messages:

- Tengo dieciocho [años] ¡Por fin!
- Mis otras clases son: Español (¿Por supuesto!), . . .

I'm eighteen, finally!
My other classes are: Spanish (of course!), . . .

It was particularly interesting to observe this latter phenomenon: A student would adopt an expression or vocabulary item that was used in the original message, and make it part of his response. The same phenomenon was observed by St. John and Cash (1995) in the context of L2 German e-mail communication. This case illustrates Ferguson's (1983; as cited by Ferrara et al., 1991) observation that some registers are "learned. . .through the speech community. . ., not explicitly taught, but picked up in an unplanned, natural manner" (p. 29).

Another phenomenon observed by Baron (1984) in the discourse of L1 CMC versus face-to-face interaction is the more extensive use of "flaming," the electronic term for swearing. Although probably not as noticeable in L2 as opposed to L1 CMC discourse, some "light" flaming could be observed in the L2 Spanish data. On one occasion, a student who was struggling with the computer terminal felt the need to release some frustration. Resorting to her swear-words list (which was given to the students), she wrote:
¡Me cago en la computadora!
Fucking computer!

In class the next day, she apologized for using foul language in her message. Apparently, the computer-mediated mode provided her with the necessary distance to write something that she would not have ever used in a traditional writing assignment, or in a face-to-face conversation. Miller (1993) sees flaming as interfering with the success of the writing activity at hand, and attributes its presence to the creative freedom of the writing approach being used. In the case of the L2 electronic dialogue journals in this study, flaming was considered a positive result of the freedom and spontaneity of the situation, and an additional and rare opportunity of language output offered to the L2 learner.

The use of humor is another way of self-expression that was not hindered by the computer medium. Depending on the individual, jokes and funny remarks were found in a few e-mail messages:

(After losing her glasses)

¿Cómo veo sin mis gafas? Es posible que atropello a un peatón.
How can I see without my glasses? I may run over a pedestrian.

(Talking about her boyfriend's dislike of cats)

La vecina de mi novio tienen un gato. . . El gato juega en las flores de mi novio. Se llama Eric, mi novio, no el gato.
[Mi novio] Quiere matar el gato de su vecina. Esto es un chiste.

My boyfriend's neighbor has a cat. . . The cat plays in my boyfriend's flowers. His name is Eric, my boyfriend's, not the cat's. He wants to kill his neighbor's cat. This is a joke.

(After another professor taught my class when I went on a trip)

El profesor Barrau es muy guapo. ¿Vas a hacer (un) otro viaje?
Professor Barrau is very handsome. Are you going on another trip?

(Signatures)

Luís-Miguel Maravilloso    Wonderful Luis-Miguel
Luís-Miguel el Gran[de]   Luis-Miguel the Great

Other Metalinguistic Functions

Because of the spatial distancing already mentioned (Baron, 1984), CMC discourse displays a number of metalinguistic functions not present in traditional in-class writing activities. Precisely because students are communicating at their own pace and space, their leave-taking formulas are different from those found in paper-and-pencil dialogue journals:

Ahora tengo que ir [a] segar la hierba de mi padre.
I have to mow my father's lawn.

Pues... tengo que ir[me].
Well, I have got to go.

Salgo de la universidad ahora
I am leaving the university now.

Yo necesito ir[me], porque mi padre necesita el [teléfono].
I've got to go because my father needs the phone.

Mi hijo debe ir a practicar béisbol.
My son needs to go practice baseball.

Debo ir a estudiar ahora.
I should go study now.

Tengo diez minutos.
I have ten minutes.
In this regard, these instances are closer to those typical of telephone conversations in which interlocutors feel the need to inform each other of their situational circumstances. This was also one of Wang's (1994) observations in her ESL students' e-mail messages.

**DISCUSSION**

Foreign language (FL) teachers have traditionally adapted methods used in L1 instruction to improve language skills in their classrooms; the use of e-mail is no exception. The pedagogical implications of using CMC for improving first and second language skills could be "enormous" (Ferrara et al., 1991; Warschauer, 1995). The possibility for FL learners to participate in soc.cult groups in a FL is only one of many resources that the Internet has to offer. In his compilation of almost 100 L2 classroom projects and activities involving the Internet, Warschauer (1995) has described a number of options available to FL teachers that encourage students to use the FL communicatively. Its benefits are assumed to be obvious, and there seems to be "...little doubt that online communication is an important new tool for language teaching" (p. xv).

While there may be little doubt regarding the importance of the Internet, how is the FL learners' language being affected by this new medium? This article suggests not only that the newly learned language may allow FL students to communicate globally through the Internet, but also that the very same use of the Internet to communicate may affect how that language takes shape through the medium. By looking at studies that analyze CMC characteristics in an L1, we have also been able to identify CMC features in L2 Spanish discourse, suggesting some implications that Internet communication may have for the enhancement and improvement of language skills in the FL classroom.

In summary, it has been observed how e-mail in an L2 enhances participation and improves time/space management, with implications for the amount and quality of content. More importantly, linguistic correlates in L2 were observed similar to those in L1 CMC. The implications in terms of how these features affect oral skills are intriguing: For example, would L2 Spanish students using discourse markers in their e-mail messages be more likely to use them in their spoken language? Baron (1984) ponders the idea of CMC influencing spoken language: "If spoken language is indeed influenced by CMC, we might expect to see an improvement...in the degree of logical coherence and grammaticality in our speech, which might begin to approximate more closely that of our written language" (p. 138-39). In the case of FL CMC, we have to remind ourselves that students' writing and speaking skills are equally underdeveloped, and that the influence of CMC may be bidirectional; that is, on the one hand, spoken language could be influenced by the greater logical coherence and grammaticality of written discourse, while on the other hand, written language could be influenced by the immediacy of the oral modality.

Writing in e-mail dialogue journals may enable FL students to communicate with native representatives of the foreign culture on the Internet, thus continuing to develop their FL skills, and thereby fulfilling the fifth goal of the National Standards --to use the language both within and beyond the school setting. Although such beyond-the-school context may not offer the same kind of interaction (in the form of useful feedback) that the FL instructor provides, a necessary component of effective communication --the negotiation of meaning-- may still operate. Furthermore, the beneficial CMC features discussed in this paper may continue to be present in the learners' language performance, thus further developing their language to higher levels of proficiency.

**CONCLUSION**

The present study adds to previous research in identifying some of the features that distinguish the foreign language produced via e-mail from that produced in traditional in-class paper-and-pencil assignments. These are: (a) a greater amount of language; (b) more variety of topics and language functions; for
example, a greater amount of questions and use of discourse management markers; (c) a higher level of 
language accuracy (at least at the beginning level); (d) more similarity with oral language; (e) more 
student-initiated interactions; and (f) more personal and expressive language use. In addition, it was 
observed that some of these characteristics, especially the fact that some students wrote longer messages 
and about topics that were more personal and removed from the usual school context, may be due to the 
availability of at-home terminals.

The Internet offers an endless list of pedagogical possibilities to both language teachers and learners. As 
educators, it is our responsibility to take advantage of these opportunities and to offer our students the 
best and most effective educational tools to motivate them and enhance their foreign language skills. The 
e-mail version of dialogue journals is one of those tools. However, further research is needed on the 
particular features of e-mail that foster L2 acquisition in the FL classroom. As Ortega (1997) points out, 
such studies should incorporate (a) a careful documentation of the learning process present in the use of e-
mail in a L2, (b) a well-motivated measure of the learners' language performance and development, and 
(c) the observation of learners' behavior after manipulating the identified features of e-mail L2 language. 
Personal feedback from the learners themselves should also be taken into consideration, since their own 
account of how they experienced the learning process, although impressionistic, may contribute a more 
rounded picture of how they learn.

The features identified in this paper, together with the tentative explanations behind their cause in the 
particular setting of this study, are hoped to have contributed to a better understanding of the language 
learning process that results from the use of CMC in the context of a FL classroom. It is also hoped that 
进一步研究 in this topic confirms the suspicion that FL learners exposed to this learning tool may 
later become lifelong learners of the language beyond the classroom context.

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