A study investigated the communication strategies used by students of English as a Foreign Language (EFL) in electronic mail interactions with native speakers of English. Subjects were 22 university students in Taiwan paired with a like number of pre-service EFL teacher trainees in the United States. The discourse of 87 e-mail entries by the Taiwanese students was analyzed over a period of a year, focusing on communicative strategies (avoidance/reduction, achievement/compensatory, time-gaining/stalling devices) and interactive speech acts (questions and answers, statements and imperatives, discourse management). The mean entry length was 13 sentences. It was found that the EFL students used most of the communication strategies commonly found in oral communication, including approximation, literal translation, foreignizing, asking for help, using all-purpose words, using fillers, circumlocution, word coinage, and nonlinguistic means. The students showed active participation in the correspondence by using a variety of interactive speech acts. An additional device noticed was purposeful choice of discussion topics of common interest. Use of time-gaining devices was an unanticipated finding. Findings were borne out in students' essays about the experience. Contains 30 references. (MSE)
Communicative Devices Used by EFL Students in E-mail Writing

Meei-Ling Liaw
Tunghai University
Dept. of Foreign Languages and Literature
Taichung, Taiwan 40704
Phone: 886-4-3590253
Fax: 886-4-3594002
E-mail: mlliaw@s867.thu.edu.tw
Abstract

This study is to examine the on-line discourse generated between EFL learners and native English speakers in a cross-cultural e-mail project. To provide a group of EFL students in Taiwan with opportunities for authentic communication in the target language, the students were paired up with native English speakers in the United States for an e-mail project. The written exchanges of the EFL students were collected and analyzed using Dornyei's (1995) typologies of communicative strategies to classify the means used by the EFL students to bridge communication gaps. In addition, interactional speech acts used by the EFL students to sustain continuous correspondence were identified. The data analysis revealed that the students have utilized a variety of communicative strategies which were commonly used in verbal communication. In addition, strategies specifically pertaining to the context of e-mail interaction were found. Various speech acts including questions and answers, statements and imperatives, and discourse management were used. The study results suggest that e-mail writing with native target language users has encouraged the EFL students to use communicative strategies and can be a viable way to enhance L2 learners' communicative competence. Furthermore, the use of interactional speech acts in the e-mail exchanges can enable students to go beyond being mere passive respondents of conversations directed to them. However, because of the hybrid nature of e-mail correspondence, more research has yet to be done to better identify and describe the unique characteristics of communication devices used by L2 learners to facilitate on-line cyberspace interaction.
Communicative Devices Used by EFL Students in E-mail Writing

The proficiency movement in the field of foreign language teaching has refocused our views of the nature and purpose of foreign language learning. Instead of emphasizing the mastery of linguistic accuracy and behavioral functions, the main goal of second/foreign language learning is to develop discourse aptitude and conceptual notions so that the learner knows how to use the language for communication in various situational contexts (Kramsch, 1986). The objective of language teaching is to increase students' communicative ability in order for them to take part in the meaning negotiation process in the target language.

This recognition of communication ability in second/foreign language learning can be traced back to Selinker's (1974) landmark study which introduced the notion of second language communication strategies. Since then much effort has been done to identify and classify those strategies (Savignon, 1983; Tarone, 1977; Varadi, 1980). The importance of communication strategies in the learning and teaching of a second/foreign language has been further highlighted by Canale and Swain's (1980) well known study which included strategic competence in the construct of communicative competence. They define strategic competence as the verbal and nonverbal communication strategies used to compensate for gaps in the language user's knowledge of the code or for breakdowns in communication for other reasons. In other words, because of a lack of basic grammar and vocabulary in the target language, second language learners have to employ certain strategies to communicate successfully within restrictions (Savignon, 1983).

The fact that communicative strategies are used by second/foreign language learners to compensate their lack of L2 proficiency carries important pedagogical implications. As Dornyei (1995) indicates:
the use of communicative strategies provide[s] the learners with a sense of security in the L2 by allowing them room to maneuver in times of difficulty. Rather than giving up their message, learners may decide to try and remain in the conversation and achieve their communicative goal. (p. 80)

Since one purpose of language learning is to increase learners' abilities to communicate and function effectively in the target language in real-life contexts, communicative strategies should be an integral part of the communicative second/foreign language instruction. As Kramsh (1986, p.370) contends, "if we want our students to mean what they say and say what they mean in the foreign language, we must develop their discourse aptitude in and through the foreign language." In other words, if we want to strengthen students' communicative competence in a foreign language, we have to teach them communicative strategies to allow for natural interaction in the real world. Gass and Varonis (1991) have also cautioned us that a significant proportion of real-life communication in L2 is problematic, yet language classes do not generally prepare students to cope with performance problems. The problem might be due to the fact that "classroom language use is institutionally asymmetric, non-negotiable, norm-referenced, and teacher-controlled (Kramsch, 1986, p. 369)," thus hardly conducive to developing the interpersonal social skills that require interpretation and negotiation of intended meanings.

In the past few years, the teachability of communicative strategies has generated continuous debate among second/foreign language educators and researchers (for a complete summary, see Dornyei, 1995). Generally speaking, theoretical arguments seem to reject the validity and usefulness of specific communication strategy training (Bialystok, 1990; Canale & Swain, 1980; Kellerman, 1991) but practical considerations and experience tend to support the idea that communication strategies can be
taught (Tarone & Yule, 1989; Wildner-Bassett, 1986). Whereas the controversy over the manner of enhancing students' use of communication strategies continues, the use of computer technology for second/foreign language instruction has broadened the scope and intensified the complexity of the use of communication strategies by second/foreign language learners. Computers are now seen as a tool that can provide students with opportunities for authentic communication with native speakers of the target language (Chun, 1994). Instead of being used as electronic page-turners, computers are utilized for communicative language instruction. In recent years, the synergy created by the marriage of computer networks and second/foreign language instruction has brought a whole new perspective to the acquisition of communicative competence in the L2 classroom.

Computer-based telecommunication is the fastest-growing education phenomenon in the history of the world (Dyrli & Kinnaman, 1995). In the past decade, national/international and local area networks (LANs) have been brought into the classroom to facilitate the use of interactive or communicative competence of second/foreign language learners (Davis & Chang, 1994/1995; Foster, 1994; Lunde, 1990; Lowry, Koneman, Osman-Jouchoux, & Wilson, 1994). It is believed that by the year 2000 some two million school children will be using Internet tools and resources.

One type of L2 network project involves interaction between students in different countries. Chang (1992) uses e-mail communication for ESL students in Taiwan to dialogue with English-speaking students in the United States. The TELFLAC project (Telecommunications for Foreign Language Across the Curriculum) at the University of Colorado at Boulder matches students of any discipline with counterparts abroad to engage in dialogue or cooperative projects through computer networks (Sheppard & Scinicariello, 1992). The cross-country collaborative French classes
between Harvard and Stanford universities utilized e-mail network to accomplish a semester-long task leading to the publishing of a student newspaper or magazine. A similar experiment took place between Harvard University and the University of Pittsburgh and between Stanford University and the University of Pittsburgh (Barson, Frommer, & Schwartz, 1993). All of the above projects revealed successful cross-cultural communication and high student interest in this approach to foreign language learning.

There are even projects which involve students at multiple sites simultaneously. For example, Tell (1992) connected six classes of Finnish participants in three senior secondary schools with foreign participants in Britain and the United States through communication networks and electronic mail for foreign language instruction. The data gathered demonstrated a decrease of initial anxiety and an increase of autonomous communication. Goodwin, Hamrick, and Stewart (1993) provided a head start in language development and cultural/academic adjustment for a group of scholars in Latin America prior to their arrival in the United States via electronic mail. The obvious benefits found in the implementation results were increased communication in the target language and one-on-one interaction between the instructors and the students.

Computer networks for foreign language instruction at the local level can be found with equally positive results. In the United States, as early as 1987, Underwood (1987) had his Spanish Conversation students make regular use of CORREO, the Spanish electronic mail system, as the communicative network for practicing Spanish and found advantages to having such a system available. For example, his students consulted electronically with their instructor more often than they did during office hours, and that the conversations via electronic mail tended to be more
open and candid than they were in person. The students who felt most comfortable with the system used it to communicate with their friends, writing considerably more Spanish messages than they would otherwise. Also in the United States, Smoke (1995) used the Novell networking system to allow ESL students to write collaboratively. It was found that the approach enabled the students to "create together, recognize differences, and make compromises (p. 40)." Chun (1994) used computer-assisted class discussion (CACD) to facilitate the acquisition of interactive competence. It was found that computer networks effectively increased the interactive competence of first-year foreign language learners because it provided the students with the opportunity to generate and initiate different kinds of discourse. Computer networking allowed the students to play a greater role in managing discourse and provided students with the opportunity to acquire and practice more varied communicative proficiency. In Hong Kong, Kroonenberg (1994/1995) has used electronic mail to develop EFL students' communicative and thinking skills. The students' writing showed that the students had good sense of audience and conveyed their purposes clearly in each entry.

Because of the wide-spreading use and interactive quality, computer networks are not only a form of modern world communication but a tool to cultivate the acquisition of communicative competence in a foreign language. However, despite their rapidly increasing popularity and positive overall outcomes claimed by foreign language educators, little research has been done to investigate the communication strategies involved in computer communication. The language and learning styles generated by computer networks remain unexplored (Barson, Frommer, & Schwartz, 1993). Neither do we known much about the characteristics or conventions of the written language occurring in terminal-to-terminal typed dialogues (Ferrara, Brunner, & Whittemore, 1991). Since computer-
mediated communication, particularly international computer networks, greatly reduces static social cues, such as clothing and furniture, and dynamic social cues, such as smiling, frowning, and hesitating (Murray, 1988; Sproull & Kiesler, 1986), students with different communication styles or preferences might react differently to its use for communication (Finholt, Kiesler, & Sproull, 1986). Also, because the salient features of network communication move between oral and written mode (Ferrara, Brunner, & Whittemore, 1991; Murray, 1988), the communication strategies involved for successful meaning negotiation could be a new category by itself and deserve close examination. The purpose of this study is to identify and classify the qualitative and quantitative aspects of communication strategies used by EFL students in e-mail writing.

Method

Subjects

One class which consisted of twenty-two university English as a Foreign Language (EFL) students in Taiwan was paired up with a class of pre-service English as a Second Language (ESL) teachers at Texas A&M University in the United States for this cross-cultural computer communication project in the school year of 1994. The EFL students were identified as having a high level of English language proficiency according to a university English placement test. The test consists of question items evaluating students' listening and reading comprehension. Out of a total of 100, the participating students' scores ranged between 68 to 70. Prior to taking this Freshman EFL course, they have had taken six years of English in junior and senior high schools.

Procedure

The duration of the project was one year, crossing two semesters. In the first semester, the major task was for the instructors at both sites to
thoroughly plan out the project logistics and to familiarize the participants with the functions of computer networks. All of the participating students had to apply for computer accounts and passwords and the university computer center was informed to provide technical support for the project. Training sessions were carried out in computer labs by the two instructors to ensure that the students were comfortable with e-mail writing. Prior to writing to their international communication partners, the students wrote messages to one another and to their instructors for practice. The students started to write to their international partners in the second semester. The spring semester at Tunghai University began on February 27 and ended on July 19 whereas Texas A&M University started on January 16 and ended on May 5. Subtracting the two Spring Breaks (April 1 to 7th for Tunghai University and March 24th to March 31th for Texas A&M University), there were only one and a half months of overlap between the two academic calendars. To maintain a student-centered approach, the students were free to write about any topics they deemed interesting and were encouraged to correspond as many times as they pleased. During the second semester, the instructor and the students discussed the experience (i.e., sharing exciting news receiving from foreign partners, analyzing difficulties in communication, inviting solutions to technical problems, etc.). At the end of the school year, the students handed in portfolios to the researcher containing hard copies of correspondence and a term paper describing the experience.

Data Analysis

Because the information gathered from the pre-service teachers at Texas A & M University is beyond the scope of this paper, the data analysis presented here includes only the written correspondence produced by the EFL students in Taiwan focusing on the communicative strategies and interactive speech acts used by the students.
Very few studies have yet investigated and identified the communication strategies used in computer mediated communication. The list and description of the most commonly used and important communicative strategies of verbal communication collected by Dornyei (1995) therefore provide the basic typology for this study (see Table 1) to analyze and describe the data. In addition, the definitions of interactive speech act used in CACD by Chun (1994) are used as the basic framework to identify speech acts in the written correspondence (see Table 2). Since the language generated by computer correspondence in general displays the characteristics of both oral and written language (Ferrara, Brunner, & Whittemore, 1991), it was anticipated that not all of the communication strategies in Dornyei's list would be found in the data. Similarly, Chun's list was generated through the analysis of computer conferencing between L2 students and is different from the cross-cultural communication between L1 and L2 speakers in this study, so the list was only to give basic framework to describe the data. The possible unique communication devices pertaining to the context of e-mail correspondence would be identified and discussed separately. To better describe the findings, the results are presented both quantitatively and qualitatively.

Insert Table 1 about here

Insert Table 2 about here

Results

A total of eighty-seven entries were written by the twenty-two EFL students in Taiwan with an average of four entries per student. The highest number of entries by one individual student was nine and the lowest was two. The mean entry length was 13 sentences.
Communication strategies

There are three major categories in the Dornyei's topology of communication strategies: avoidance or reduction strategies, achievement or compensatory strategies, and stalling or time-gaining strategies. In each category, there are sub-categories. In this study, only two categories applied. The number of each strategy used by the participating students is presented in Figure 1.

| Insert Figure 1 about here |

Avoidance or reduction strategies. This category includes message abandonment and topic avoidance. Message abandonment is when the communicator leaves a message unfinished because of language difficulties. Topic avoidance is for the communicator to avoid discussing topics and concepts which require the language skills beyond his/her current proficiency level.

This category seems to fall short in describing the correspondence via e-mail. Unlike verbal communication, written correspondence gives students time to think and organize their thoughts. The students are more likely to completely delete the messages they do not know how to discuss further than just leave the message half finished. However, not finding a response or complete discussions on certain topics could mean several different things. It could mean that the students were not interested in the topics, the students forgot to respond to that specific information, or simply that the students did not know the topics well enough to discuss them. All of these possible causes could commingle with language difficulties and are hard to be teased out. In verbal communication, the use of these types of fixed-up strategies are more transparent and easier to leave traces.
Achievement or compensatory strategies. This category includes the most frequently used strategies by this group of students.

Approximation. This category had the highest frequency of appearances in the students' entries (n=23). Approximation strategy is to use an alternative term which expresses the meaning of the target lexical item as closely as possible. For example, the students wrote sentences such as, "I am taking computer studies [computer programming] course," and "I am finding a new house [apartment]." Although the use of computer studies and house served the purpose of communication, the use of the two words was not as precise as what the students intended to get across.

Literal translation. This was another frequently used strategy (n=21). The students simply translated the Chinese lexical items into English. For example, the holiday in Taiwan when the ancestors are worshipped was literally translated as the "Sweeping Tomb Day". One student confessed to her partner that her English "degree" was not good. Direct translation from Chinese syntax structure was also found. For example, one student wrote, "I must live in the dormitory with [other four] roommates." Another student wrote, "I will tell you about my [travel] when I come back." Whereas in English there is a grammar error in the sentences, but in Chinese grammar, the structures were perfectly correct.

Foreignizing. Foreignizing mostly happened when the students introduced their hometown and themselves (n=19). Excluding the commonly accepted foreignizing for Taiwan and its capital city, Taipei, the students spelled out the names of their hometowns and their own names phonetically.

Appeal for help. Over half of the students asked for help from their native-English speaking partners (n=13). Almost all the requests for help were very sincere. The followings are some typical examples.
If I do something wrong, please teach me, O.K.?

If I make many mistakes, please don't laugh at me and please tell me.

Maybe I made many mistakes in grammar. Kindly give me your advice.

If my English grammar have many mistakes, I wish you can tell me.

One thing worth noting here is that the students did not ask for help from their partners to directly supply language items to help them overcome the difficulties like people usually do in verbal communication. The kind of help they requested were indirect and general "catch-all" kind of assistance.

*Use of all purpose words.* Using words such as *do, make, things,* were found in ten entries as the communication device to get meanings across (n=10). In the following examples, the students used this strategy to manipulate their available language to carry out the communication: "I am sorry about that because I didn't do well between our connection"; "The experience make me think many things"; "I am always interested in fresh things."

*Circumlocution.* Circumlocution was used by students to compensate for their linguistic deficiencies, too (n=8). For example, a student described herself as a person with "happy heart" for being optimistic. The mandatory military service in Taiwan was described as "the service that all boys have to be soldiers." A student introduced herself as "a new student in university" instead of a freshman. While trying to tell her partner a Chinese story, the student used "a wife of king" to describe the main character in the story who was a concubine.

*Word-coinage.* Word-coinage strategy was found in several entries (n=6). The word "schoolhome" was created for dormitory. The word "favorist" was used to by a student to describe the sport he loved the most.
"Autobike" was his other creative product of the word-coinage strategy for motorbike. Another students said that she loved "supplementary dishes" more than the main course.

**Use of nonlinguistic means.** Quite interestingly, the use of nonlinguistic means which was thought to be unique to verbal communication was also found in written entries. Although not too many of them were used (n=4), such devices did add a special zest to the entries. For instance, a happy smiley face, such as ^_^ and :, was used for greetings or saying farewell to others. One student wrote to his partner about his birthday party and emphasized that he is a big grown-up by capitalizing the word "am." --- "I AM 20 years old now." The two capitalized letters give a special visual effect similar to an exaggerated tone and high-pitched voice.

**Code-switching.** Code-switching is the only category that was not found in the data. The missing of the code-switching strategy was not a surprise since the e-mail partners at Texas A & M University did not know any Chinese, the strategy would make no sense to be used.

**Stalling or time-gaining strategies.** This category means that the person who is communicating uses filling words such as well, let me see, you know, to fill pauses and to gain time to think. In e-mail writing, usually time constraint is not an issue and this category was not expected to be found in the students' writing. Nevertheless, the students filled in such words between and within sentences. It is more of a form of treating e-mail communication as verbal communication than stalling for time.

**Speech acts**

The speech acts performed by the students were identified according to the categories adapted from Chun's (1994) list. The acts were coded sentence by sentence. Table 3 presents the number of sentences of each different speech act.
Questions and answers. In this category, there is a disproportionately higher number of questions posed than were answered by the EFL students. Providing the fact that the students answered most of the questions asked by their partners, it is safe to say that the students took the initiative of asking questions. Among the total eighty-eight questions initiated by the students, seventy-two of them were specific questions and sixteen were general questions. The students answered twenty-seven questions asked by their partners. Among these sentences, twenty-six were to answer specific questions and only one was to answer a general question posed by the partner.

Statements and imperatives. By far the greatest number of sentences were statements and imperatives (n=810). Statements to expand on a topic outnumbered other sentence types (n=470). Statements to a partner not in response to questions came second (n=157). Statements to start on a new topic could also be easily found in the entries (n=138). Imperatives, suggestions, and exclamations were not as frequently used by the students (n=26, 8, and 11).

Discourse management. In terms of discourse management, the students have requested clarification (n=48), given feedback to their partners (n=66), and used social formulas for greeting and farewells (n=84). One thing worth noting here is the high number of social formulas used by the students. The total entries produced by the students were eighty-seven. Despite the fact that some of the entries contained more than one sentence for greetings and farewells, there were still a high proportion of entries contained social formulas. Between greetings and farewells, leave-taking expressions were produced more than the other. Greetings were usually
quite brief whereas leave-taking were usually coupled with explanations and invitations of continuing correspondence at a later time.

Students' attitudes toward the approach

At the end of the project, the students were asked to write a reaction paper to describe their likes and dislikes toward the use of the approach for EFL instruction and to give opinions as what could have been done to help them get the most out of the project. The reactions from the students were all very positive. Students expressed that this project has given them the opportunity for the first time to communicate or write meaningfully in English. They also expressed that they appreciated the chance to get to know people from another country and broaden their world view. They described their excitement and initial uncertainty to take part in the project and how these feelings went up and down depending on their partners' responses during the communication process. Despite the fact that the actual time for correspondence was only one and a half months, plus the occasional technical problems and heavy "traffic" in the computer lab, all the students managed to establish contacts with their partners.

Frustration did occur and stem from not being able to send or receive messages because of technological problems and the short period of time for the correspondence. However, no students complained or mentioned any frustration caused by language difficulties.

Summary and Discussions

In summary, to sustain communication with their e-mail partners, the participating students have used most of the communication strategies that are commonly found in oral communication. These communication strategies, in terms of frequency of appearance, included approximation, literal translation, foreignizing, asking for help, use of all-purpose words, use of fillers, circumlocution, word-coinage, and use of nonlinguistic
means. Because of specific nature of the e-mail correspondence between L1 and L2 users, the avoidance or reduction strategies were difficult to be identified in the data. The missing of code-switching strategy was logical since the students' English-speaking partners wouldn't have understood even if they were utilized. The students have also demonstrated active participation in the correspondence by using various interactive speech acts. The students asked a high number of questions and this meant that they took initiatives in eliciting interaction rather than passively responding to the conversations directed to them. The students also tried to sustain conversations by expanding and elaborating on discussion topics. In addition, the students did not hesitate to start new topics to keep their partners interested in corresponding with them. A few of them even asked if their partners found the topics boring and were willing to change the topics preferred by their partners. Overall, no obvious communication breakdowns were noted. No participating students complained about not being understood or not being able to understand their partners. The only one instance was when one student misspelled Texas as Taxis and caused some confusion. However, his partner conveyed her confusion and the student very apologetically explained that it was a typo and straightened things out. Most of the students considered the approach a worthwhile attempt to help them improve their English language proficiency and responded positively to the experience. Several students indicated that this experience was their first time ever writing something meaningful in English and asked the teacher to keep using the e-mail approach as one of the assignments for the course. Based on the analysis of communication-enhancing devices used by the students and information obtained from the reaction papers, it seems that the use of cross-cultural e-mail writing has provided the students with the opportunity to utilize strategic communicative devices in English which is an important component in
communicative competence. It has also given the students the freedom to practice a different variety of speech acts for authentic communication.

Besides supporting the findings of previous endeavor of examining the effects of e-mail writing to facilitate foreign language learning, this study further investigated the communication-enhancing devices used by EFL students in cross-cultural e-mail communication and noted specific strategies used by the students pertaining to the context. The communication strategies identified in available literature concern strategies mostly used at the sentence level which was the kind of communication devices the researcher originally planned to investigate. However, the research results have pointed to something more than the researcher has originally assumed. The students have utilized macro-level devices to facilitate the communication.

The first one can be termed as the "safety net" device. As the results showed that over half of the students appealed for help from their partners, obviously they perceived their native-English-speaking partners as their sources of help for English. Although none of their partners helped to correct the EFL students' language or any "mistakes," they on the other hand provided a kind of encouragement to the EFL students. Getting such positive reactions from native speakers definitely helped with gaining confidence in their own English ability. As a matter of fact, quite a few students wrote in their reaction papers that after finding out their partners had no trouble understanding them, they felt a much stronger sense of confidence in their own English ability. The fact that the strategy of asking for help always occurred at the very beginning of the correspondence indicated that the students were actually designating their native English-speaking partners to be their "rescuers," the one who should be ready to bridge any chasm there might be during the communication. Not only did they prepare themselves for possible
communication breakdowns, they also put their partners on guard for such situations. After they had set up the safety net for themselves, they then went on exploring the new communication cyberspace to which they had never been before.

Another observed macro-level communication device was the purposeful selection of topics for discussion. Although the avoidance strategy in Dornyei's list was hard to detect in the data of this study because of the nature of e-mail correspondence, the students in this study used a more active approach based on the same notion. The students chose the topics that they felt comfortable talking about. One student stated in his reaction paper that he purposefully chose sports as the major topic to discuss with his partner because he felt that it was important to talk about something that both parties had interest in. He continuously supplied the outcome of NBA games, stated his own reactions toward the performance of his favorite players, and invited his partner to comments on the games. The same thing happened to other students who found that they both loved pets or were having trouble with certain subjects and had their discussions surrounding such topics. The strategy of choosing the topics they liked and could talk about has certainly put them in a better light and given them more power to take control of the direction of the conversation.

Another interesting thing to note in the research findings was the use of nonlinguistic means and time-gaining devices. These two strategies were commonly used in verbal communication but were not expected by the researcher to be found in the data. Nevertheless they found the way to serve communication purposes in e-mail correspondence. The use of nonlinguistic means was even more of a pleasant surprise because its added special effects. In addition, the use of the two devices has provided the evidence to support the findings from other studies that e-mail correspondence has the characteristics of both written and verbal...
communication (Farrara, Brunner, & Whittemore, 1991; Murray, 1988). The students even wrote sentences such as, "See you next time" and "I am so glad to meet you," as if they were engaging in face-to-face interaction with their partners. Such close resemblance to verbal and face-to-face communication gives the students more freedom to manage their discourse and opportunities to devise their own communication strategies.

Although this study has some interesting findings regarding the use of communication-enhancing devices used by EFL students in the e-mail correspondence with native English speakers. The results are far from conclusive. Because of the short overlap of academic calendars between Taiwan and the United States, there was not sufficient time for the students to engage in in-depth conversations with each other. As some students pointed out in their reaction papers that they felt that they got cut off just when they were all warmed up and ready to go. The communication strategies between people who barely know each other and people who have been communicating for a longer time can be quite different. Therefore it is premature to generalize this research result to the situation when the students can have a longer period of time to correspond with partners for a substantial period of time.

Cyberspace communication is the trend in today's society. Foreign language teachers are welcoming this technology with open arms. It is sure to change the way people communicate and the way teachers can do to help their students to achieve foreign language competence. However, very little do we know how it happens and what exactly happens in this new communication territory. More research has yet to be done to study this exciting and ever expanding field.
References


the second international conference on foreign language education and technology, 181-190.


Table 1

Typology of communication strategies

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<thead>
<tr>
<th>Avoidance or Reduction Strategies</th>
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<tbody>
<tr>
<td>1. Message abandonment - leaving a message unfinished because of language difficulties</td>
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<td>2. Topic avoidance - avoiding topic areas or concepts which pose language difficulties</td>
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<tr>
<th>Achievement or Compensatory Strategies</th>
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<tr>
<td>3. Circumlocution - describing or exemplifying the target object or action (e.g., <em>the thing you open bottles with</em> for <em>corkscrew</em>).</td>
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<td>4. Approximation - using an alternative term which expresses the meaning of the target lexical item as closely as possible (e.g., <em>ship</em> for <em>sail boat</em>).</td>
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<td>5. Use of all-purpose words - extending a general, empty lexical item to contexts where specific words are lacking (e.g., the overdue of <em>things, stuff, make, do</em>, as well as using words like <em>thingie, what-do-you-call-it</em>).</td>
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<td>6. Word-coinage - creating a nonexisting L2 word based on a supposed rule (e.g., <em>vegetarianist</em> for <em>vegetarian</em>).</td>
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<td>7. Use of nonlinguistic means - mime, gesture, facial expression, or sound imitation.</td>
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<td>8. Literal translation - translating literally a lexical item, an idiom, a compound word or structure from L1 to L2.</td>
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<td>9. Foreignizing - using a L1 word by adjusting it to L2 phonologically (i.e., with a L2 pronunciation) and/or morphologically (e.g., adding to it a L2 suffix).</td>
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<td>10. Code switching - using a L1 word with L1 pronunciation or a L3 word with L3 pronunciation in L2.</td>
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<td>11. Appeal for help - turning to the conversation partner for help either directly (e.g., <em>Who do you call...?</em>) or indirectly (e.g., rising intonation, pause, eye contact, puzzled expression).</td>
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<th>Stalling or Time-gaining Strategies</th>
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<tbody>
<tr>
<td>12. Use of fillers/hesitation devices - using filling words or gambits to fill pauses and to gain time to think (e.g., <em>well, now let me see, as a matter of fact</em>).</td>
<td></td>
</tr>
</tbody>
</table>

Taken from Dornyei (1995)
Table 2

Types of Speech Act

<table>
<thead>
<tr>
<th>1. Questions and answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. asking general questions</td>
</tr>
<tr>
<td>b. asking specific questions</td>
</tr>
<tr>
<td>c. answering general questions</td>
</tr>
<tr>
<td>d. answering specific questions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Statements and imperatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. statements to a partner not in response to</td>
</tr>
<tr>
<td>questions</td>
</tr>
<tr>
<td>b. statements to expand on a topic</td>
</tr>
<tr>
<td>c. statements to start a new topic</td>
</tr>
<tr>
<td>d. imperatives</td>
</tr>
<tr>
<td>e. suggestions</td>
</tr>
<tr>
<td>f. exclamations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Discourse management</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. requests for clarification: statement,</td>
</tr>
<tr>
<td>questions, tag-questions</td>
</tr>
<tr>
<td>b. giving feedback to others: statements of</td>
</tr>
<tr>
<td>agreement, apologies</td>
</tr>
<tr>
<td>c. social formulas: greetings and farewells</td>
</tr>
</tbody>
</table>

Adapted from Chun (1994)
Table 3

Number of Speech Acts by Types

<table>
<thead>
<tr>
<th>Questions and Answers</th>
<th>Asking general questions</th>
<th>Asking specific questions</th>
<th>Answering general questions</th>
<th>Answering general questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Questions and Answers</td>
<td>16</td>
<td>72</td>
<td>1</td>
<td>26</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statements and Imperatives</th>
<th>Statement not to respond</th>
<th>Statement to expand</th>
<th>Statement to Start new topics</th>
<th>Imperatives</th>
<th>Suggestions</th>
<th>Exclamations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statements and Imperatives</td>
<td>157</td>
<td>470</td>
<td>138</td>
<td>26</td>
<td>8</td>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Discourse Management</th>
<th>Request for Clarification</th>
<th>Giving feedback</th>
<th>Social formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discourse Management</td>
<td>48</td>
<td>66</td>
<td>84</td>
</tr>
</tbody>
</table>
Figure Caption

Figure 1.

Numbers of communication strategies used by category
Communicative Devices Used by EFL Students in E-mail Writing

Meei-Ling Liaw

Tunghai University, Dept. of Foreign Languages and Literature
P.O. Box 970
Taichung, Taiwan

Associate Professor
886-4-3590253
Oct. 28, 1996
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