Computer-Mediated Communicative Competence: How Email Facilitates Second-Language Learning

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ABSTRACT

Computer-mediated communication (CMC) is an important medium by which teachers and students interact both inside and outside of the classroom. Unfortunately, CMC has received little attention in terms of second-language (L2) acquisition. This paper reviews a variety of recent research on CMC's role in language teaching to provide a basis for understanding how the medium can aid L2 teaching and learning. The review shows that CMC's role in L2 teaching is effective when the process is blended with explicit instruction and autonomous practice. However, this paper also illustrates how L2 learners lack pragmatic competence when using CMC that results in misunderstandings when student-to-teacher or native-to-non-native interaction occurred. The review concludes with pedagogical considerations for L2 teaching and learning.

INTRODUCTION

Computer-Mediated Communication (CMC) expands the potential to teach second-language (L2) learners, both inside and outside the classroom (Warschauer, 1997; Stockwell, 2010). In the broadest terms, CMC in L2 teaching has been viewed as a way to augment pedagogical processes between L2 teachers and students (Warschauer, 1997). Many different factors are at play when reviewing the applications of CMC in L2 teaching that govern the collaboration between L2 teachers and students. CMC differs from oral communication methods through the following features: "(a) text-based and computer-mediated interaction, (b) many-to-many communication, (c) time- and place-independence (d) long distance exchanges, and (e) hypermedia links" (Warschauer, 1997, p. 470). As there are a great number of uses for CMC in L2 teaching, ranging from

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synchronous to asynchronous applications and from video conferencing to internet message boards, this paper will discuss how L2 teachers and students approach the use of CMC in L2 teaching. I will not review every application of CMC in L2 teaching and will thus narrow down the discussion on CMC's uses to a single choice application: email.

Moreover, this review will address how the email medium simultaneously reflects and distracts from established notions of authentic communication by borrowing from spoken and written pragmatic conventions. In addition, it will explore evidence of how an L2 learner can acquire communicative competence by first discussing the importance of pragmatic competence and thus looking at pragmatic communication as it is realized in CMC. Once the importance of how pragmatic communication attributes towards communicative competence has been established, I will then explore the usage of communication through email in L2 teaching and review previous research defining communication through email. Finally, pedagogical limitations in using the email medium and areas of potential for further research will be discussed. This paper will not argue for a new definition of email's role in pragmatic communication but rather will focus on how communicating through email facilitates L2 learning.

COMMUNICATIVE- AND PRAGMATIC-COMPETENCE

Pragmatic competence contributes towards communicative competence; because of this language registers differ between spoken and written discourse. According to Biesenbach-Lucas (2007) the idea of pragmatic competence is used to distinguish levels of clarity as well as syntactic and lexical devices used by native and non-native speakers. Pragmatic competence is also important when evaluating an L2 learner's communicative competence (Martínes-Flor, 2006). With regards to L2 learning, Biesenbach-Lucas (2007) and Blanchette (2009) attribute a pragmatically competent person as one who is able to use a variety of politeness conventions during communication between teachers and students. Furthermore, Bachman and Palmer's (1996) work on language assessment defines communicative competence as a hybrid of language knowledge, in other words knowledge of grammar and vocabulary, and language use. Whether this communication occurs inside or outside the classroom, however, the interaction is conveyed through two distinct roles: speech and writing.

Fukuya and Martínes-Flor (2008), in their study on the interactive effects of pragmatic instruction, found that L2 learners' command of pragmatic competence differ depending upon spoken or written tasks. The assessment tasks employed in the study were email- and

phone-based discourse-completion-tasks. Their conclusion was to highlight pedagogical awareness when L2 teachers evaluate their students' pragmatic performance:

> If you have taught a pragmatic language feature [for example] via a Focus on Form technique, and the learning outcome has not been as good as you expected when you evaluated [the] learners' pragmatic performance in an oral mode. This unsatisfactory learning outcome may not be due to the inadequate pedagogy; rather it may be related to your choice of an assessment task. (Fukuya & Martínes-Flor, 2008, p. 490)

Although this is a comprehensive definition, Fukuya and Martínes-Flor's study emphasizes that evaluating spoken pragmatic competence differs from evaluating written pragmatic performance. In other words, it cannot be assumed that spoken performance can be evaluated under the same criteria as written performance. In short, a theoretical writing performance perspective regards pragmatic competence as being lexically and grammatically accurate (González-Bueno & Pérez, 2000; Shang, 2007) and in particular the extent to which linguistic forms differ based upon written-language register (Volckaert-Legrier, Bernicot, & Bert-Erboul, 2009). In practice, however, Biesenbach-Lucas, Meloni, and Weasenforth (2000) argue that when L2 learners have learned of differences in pragmatic formality in email and other asynchronous texts they often lack the syntax to switch between the different written-language registers. This does not mean, though, that the participants in Biesenbach-Lucas et al.'s study lacked pragmatic competence due to the L2 learners reported inability to switch between written texts.

Vocabulary usage, as it relates to written-language registers, not only needs to be precise and accurate but also pragmatically appropriate. Instruction directed towards L2 learners should allow for self-reflection of their own writing to allow for guidance in acquiring pragmatic competence in their L2 of study (Martínes-Flor, 2006). Biesenbach-Lucas (2007) asserts that L2 learners "can plan, compose, revise, and edit" written text "only if they *have* flexible linguistic means at their disposal and *know* which linguistic structures and politeness devices to use" (p. 74, emphasis in original). Giving L2 learners the ability to switch between written-language registers provides knowledge over written pragmatic performance. However, L2 learners who are not accustomed to switching between written-language registers and are suddenly required to adopt register switching into their repertoire could have a negative effect in their language development. Therefore, it is not only a matter of providing and demonstrating written pragmatic performance, but also facilitating "the need to learn new ways to use language" (Blanchette, 2009, p. 392).

Creating that "need" is fundamental to L2 instruction, and in order for L2 students to acquire written pragmatic performance, L2 teachers need to consider and adapt into their pedagogy L2 learning and, according to Akbulut (2008), "motivation" (p. 1). Torii-Williams

(2004) advocates that L2 teachers should focus their instruction on several distinct pedagogical goals in order to foster motivation in their students: "language systems, cultural knowledge, communicating strategies, critical thinking skills, learning strategies, other subject areas and technology" (p. 110). As the abovementioned studies have demonstrated, the notion of pragmatic competence is integral to studies regarding the acquisition of communicative competence (Biesenbach-Lucas, 2007; Martínes-Flor, 2006). Yet, whilst recognizing the requirement for instruction on written pragmatic performance to include the ability to motivate L2 learners, the question that arises is how to integrate pragmatic usage with written registers that will be comprehensive and pedagogically applicable. One approach by which L2 teachers can integrate pragmatic usage with written registers is through CMC, advocated by Warschauer (1997) because of its usefulness in facilitating "collaborative language learning" (p. 471).

COMPUTER-MEDIATED COMMUNICATION

As written text is permanent it can be used as a basis for interpretation and reflection. The added benefit arises from the nature that written text has the potential to be simultaneously analyzed and accessed by different people, who also do not necessarily need to possess the same linguistic, or cultural, background. Warschauer defines CMC as the merger of written and spoken language, where the interactive and reflective nature of either writing or speech occurs simultaneously in a single medium: "human interaction now takes place in a text-based form" (p. 472). However, as written pragmatic performance cannot be evaluated under the same criteria as spoken pragmatic performance (Fukuya and Martínes-Flor, 2008), interaction conveyed through written discourse is not mutually exclusive with spoken discourse. Fortunately, as demonstrated by Warschauer (1997), this division does not apply to CMC discourse. Thus, CMC, as a hybrid between speech and writing, has created new patterns of discourse that must be understood from a pragmatic perspective.

From a pragmatic standpoint, email can be seen as resembling conversation rather than resembling a written letter (Sabater, Turney, & Fleta, 2008). Scheyder (2003) posits that communication through email has adopted a casual tone that assumes familiarity between interlocutors while conceding how email can be archived on a computer that necessitates the need for a more formal tone than spoken language. Furthermore, Scheyder defines one form of greater formality: the complimentary closing. Scheyder also states that "There are many pragmatic considerations on composing an e-mail, far too many to address in a single study"

(p. 28). Similarly, Volckaert-Legrier et al. (2009) indicate that communication through email follows the pragmatic roles of both spoken and written interaction. According to Stephens, Houser, and Cowan (2009), email has expanded opportunities for interlocutors to communicate while communication through email differs considerably from a face-to-face discourse community. These characteristics of communication through email, that are consistent with Warschauer's (1997) definition that email appears as a hybrid of spoken and written interaction, reinforce the notion of email as new discourse. Further claims defining this definition arise from studies examining pragmatic and asynchronous interactions.

Blanchette (2009), in her study involving graduate students who held a peer group discussion model via an online listserv discussion board, found that CMC asynchronous conversations between teachers and students do constitute an online variant of discourse. The goals of her study were to identify the linguistic, organizational, and interactive strategies employed in a text-based asynchronous environment. Although her findings revealed how the interaction resembled speech, due to a complex and dynamic usage of speech acts, the structure of the interaction does not. In fact, Whalen, Pexman, and Gill (2009) argue against claims defining CMC as "impoverished communicative environments" (p. 264) by focusing on instances of nonliteral language use in peer-to-peer communication through email. Their conclusion demonstrated that "nonliteral language is used with some frequency in e-mail communication" yet they concede how "e-mail is arguably a more impoverished setting than other communicative contexts" with regards to face-to-face communication (p. 277). Whalen et al.'s conclusions pertain to the argument for email as a sub-genre of discourse by ascertaining how communication through email differs from spoken interaction. Furthermore, Whalen et al. do call for follow-up studies to be conducted by citing a dearth of information on corpus data and pragmatic speech-act usage occurring in email. In addition, Biesenbach-Lucas (2007) cites a similar lack of research and illustrates in her study the potential drawback of when teachers fail to "incorporate email composition into their syllabi, students are left to their own devices in trying to craft a message that is effective as well as status-congruent and polite" (p. 62). The notion of why L2 students would be *left to their own devices* alludes to the idea that incorporating pragmatic competence into teaching remains distinct from teaching communication through email.

On the one hand, O'Dowd (2003) believes that there is a relationship between email exchanges and L2 learning and utilizes the idea of intercultural competence to justify how email can facilitate L2 learning. The aim of his study was to define characteristics in email exchanges that achieved all of the following: (1) that a clear learning objective was achieved through the email exchanges; (2) a measurable learning process had occurred; and (3) that the participants in the study adopted particular forms of communication when interacting with

native-speakers of their L2 of study. During the course of his study O'Dowd determined how L2 are not likely to posess the knowledge needed to successfully compose an email in their L2 "any more than they are likely to be aware of the skills and knowledge necessary for intercultural learning" (p. 138). Thus, O'Dowd, arguing for a similar approach to L2 teaching as advocated by Biesenbach-Lucas (2007), encourages L2 teachers to directly impart the linguistic structures needed by their students to participate in email exchanges (p. 138).

On the other hand, according to González-Bueno and Pérez (2000) the ultimate finding of their study is to not only to focus on formal aspects of written language but also to consider the participants' perceptions regarding the worthiness of acquiring pragmatic forms. In other words, it is important to consider the L2 learners' perception of what is, and is not, required for their pragmatic performance when teachers present to their students the knowledge needed when communicating through email. Specifically, Fukuya and Martínes-Flor (2008) advocate that teachers adopt a hands-off approach and permit their L2 students to be creative wen tasked with email correspondence "to an interlocutor of equal or higher academic status" (p. 482).

As the aforementioned studies regarding L2 teaching and email have implied, the background knowledge and role of the students is as relevant as the teacher's; while student-to-student interaction through email facilitates L2 learning, analyzing similar student-to-teacher interaction would expand the knowledge of email's usage beyond the boundaries of acquired language use. Nevertheless, the theory of this sub-genre of discourse through email is bound as a hybrid between the existing practice of speech acts (Biesenbach-Lucas, 2007; Blanchette, 2009; Martines-Flor, 2006) and written-linguistic formality (González-Bueno & Pérez, 2000; Sabater et al, 2008; Scheyder, 2003; Volckaert-Legrier et al, 2009). Yet, understanding how the practice of discourse through email arises from the interactive and social effects used in mediating email communication between interlocutors is warranted (Fukuya & Martínes-Flor, 2008).

COMMUNICATION THROUGH EMAIL: PEDAGOGICAL LIMITATIONS

This section will highlight pedagogical limitations when interlocutors of varying pragmatic competence communicate through email and highlight how the notion of communication through email functions as a skill. Studies concerning email as the medium of communication tend not to differentiate between the degree of competency separating a native and a non-native speaker in the participants. For a definition of communication through email, Leahy (2001) states:

E-mail is usually asynchronous communication which combines the advantages of computer-assisted text production with the possibility of rapid exchanges of ideas over potentially vast distances. Furthermore, text production does not need to be an entirely linear process any more. Additional information can be fed in at any time, the structure and content can be rearranged before sending the message off. (p. 17)

Leahy's definition of email applies several useful concepts to understanding how asynchronous CMC functions. In terms of potential, Leahy's notion of interlocutors being able to pre-edit their messages prior to communicating allows communication through email to be an intricate and complex L2 learning application. In terms of use, though, email "is considered to be an easy (reply button), efficient and polite communication tool" (Sabieh, 2002, p. 4). Yet, both asynchronous interaction and command of language can challenge the communicative process if multiple interpretations can be made (Whalen et al, 2009).

Kitade (2006) recognizes "that since [email] is text-based communication, nonverbal cues are unavailable" (p. 319). She further argues that "each turn (message) in asynchronous CMC is relatively long and contains multiple topics" (p. 325). Kitade examined negotiation structures and strategies used between 24 native and non-native speakers of English email interactions. Her findings provide a perspective regarding the potential difficulties experienced when using email as a communication medium. Diagnosis of her findings yields how several features of email "(e.g., formality, complexity of expression, and the occurrence of multiple topics in one message)" require interlocutors to mitigate and reduce potential face-threatening acts when engaging in communication through email (p. 334). Although some of the participants were native speakers of the language of use, Kitade argues how "[n]ovice participants in asynchronous CMC are unaccustomed to the innovative strategies demonstrated in the study. They need to be instructed in the use of effective signal types and to be made aware of the importance of responding to signals" (p. 339). Kitade's study illustrates how the absence of nonverbal communication coupled with the potential increase of information transferred in each message, via the inclusion of multiple topics, reinforces the need for native and non-native speakers alike to learn similar pragmatic routines while communicating through email. Although Stephens et al. (2009) illustrate how a native-speaker's ability to adopt pragmatic communication routines into new communication mediums still remains an advantage the notion that a native-speaker's inherit ability with an implication of CMC mitigated language warrants further attention.

Sabater et al. (2008) in their study choose to examine interactions based on two intersecting binaries: email based on the mode of communication (one-to-one vs. one-to-many) and whether the sender was a native or non-native speaker of English. Their results demonstrated little variability in message composition based on the sender's first

language since native and non-native speakers rarely demonstrated an awareness of using email openings and closings. Sabater et al. later conclude, "in both cases [of native and non-native speakers] there is a clear distinction between the level of formality in messages to many individuals, which tend to be less formal" (p. 77). Whether the sender is a native speaker detracts from the ability to successfully use email for communication (Sabater et al., 2002; Stephens et al., 2009)

Whereas Kitade (2006) emphasizes how native and non-native speakers exhibit similar tendencies when communicating through email, Stephens et al. (2009) suggests that native speakers have been found to possess higher pragmatic awareness than L2 learners. For example, to bridge this gap, Scheyder (2003) states it is best to define what a native speaker of English does to mitigate pragmatic communication in order to serve as a model useful for L2 instruction. However, the potential for a non-native speaker to be equally skilled with a native speaker when communicating through email necessitates consideration for institutional expectations to be clear regarding email production. (Biesenbach-Lucas, 2007; Sabater et al., 2008; Scheyer, 2003).

CHANGES IN SOCIALIZATION

Spoken- And Written-Language Learning

This section will define how communication through email facilitates L2 learning by highlighting examples of CMC and spoken- and written-language learning. As with speaking and writing there is no single definition of the practice of communication through email. Shang (2007) argues, in terms of L2 learning, email "is a useful tool to facilitate discussion beyond the confinements of the classroom" (p. 93). While Sabater et al. (2008) illustrate that although one's communication style differs based on social situations, email has allowed people "to communicate informally and its style was closer to a form of conversation than to a traditional letter" (p. 42). Although Shang's and Sabater et al.'s definitions here affirm the notion of email serving as conversation, the reduction of communication through email to serving as spoken discourse ignores the importance of written conventions. Thus, the results here illustrate how communication through email reflects authentic communication only as far as it conveys personal, linguistic, and sociocultural information yet defies this authenticity as the writer may edit and deliver pre-planned discourse. Furthermore, in practice, studies concerning the connections between L2 learning through email highlight teaching conventions of using email.

Speaking for the potential of using email in L2 classrooms, communication through email can emulate authentic communication as Lawrence (2002) affirms:

> The use of e-mail as a teaching tool can ground the study of L2 languages in a learner-centred, authentic communicative context, and can offer interaction with first language speakers, yielding insight not only into the target language but also the target culture. (p. 58)

In addition, Torii-Williams (2004) demonstrates how "e-mail exchanges with other students who speak the target [L2] can offer great benefits to students, such as using the target [L2] for an authentic purpose, making new friends and learning about their culture" (p. 121). Moreover, according to Akbulut (2008) successful L2 learning and authentic language usage is enhanced through the practice of communication through email. He argues that the medium allows L2 learners to "participate more in efficient negotiation of meaning with anyone they want, on any subject matter they wonder and at any time they wish to participate" (p. 10); however, Akbulut further concedes how his definition, in teaching practice, of using email "cannot always be realized in even communicative classrooms" (p. 10). Thus, he follows this notion of affirming the importance of using technology and motivating students to communicate on both an autonomous and a classroom level. By focusing on the notion that target L2 practice with native speakers can facilitate target cultural insight, communication through email appears to not only serve as a substitute for communication but also authentic communication while aiding in successful L2 learning (Akbulut, 2008; Lawrence, 2002; Torii-Williams, 2004).

Furthermore, Dooly (2007) incorporated the idea of a 'platform of communication' which describes email as facilitating "group processes and group dynamics in ways that may not be achievable for instantaneous long distant group work or multiple learning environments" (p. 64). This is distinguished with the idea of how L2 learners can enjoy "being able to use [their] computer as a means of communicating" while fostering connections between L2 learning and authentic communication when engaged in CMC (Dooly, p. 65). Thus, communication between interlocutors outside of the L2 learning classroom using the email platform of communication not only encourages one-to-one and one-to-many interactions but also motivates L2 learners to participate in authentic communication.

In sum, while the studies previously discussed differ in their approaches to defining communication through email, there remains consensus on the importance of L2 learners communicating with native speakers through email not only to participate in authentic communicative contexts but also to acquire insight into the target L2's culture (Dooly, 2007; Lawrence, 2002; Sabater et al, 2008; Shang, 2007). In terms of exchanging information,

personal engagement can help L2 learners to gain "insight not only into the target [L2] but also the target culture" (Lawrence, 2002, p. 465); additionally, when "two learners who are learning each other's mother tongue" they can interact via email in order to facilitate a reciprocal objective; that is, "to improve their own communicative competence in the target [L2] and to help their partner to achieve the same" (Vinagre, 2005, p. 370). In short, when interlocutors willingly pursue email as a communication medium the interaction serves to teach about culture in addition to learning an L2. Moreover, this native-to-non-native speaker interaction confirms how CMC's potential for time- and distance-independence, with the practice of both individual and group interaction, remains a sub-genre of discourse (Akbulut, 2008; Dooly, 2007). However there remains no further claim towards how the written conventions of communicating through email are reinforced within this authentic communication's medium.

Yet, the findings of Blanchette's (2009) research revealed that "Asynchronous online communication has increased the potential for interaction between and among participants, and at the same time created the need to learn new ways to use language, since the communicative strategies that instructors and students have been socialised to in the face-to-face setting are not always adequate in the online context" (p. 392). Her study described how both L2 teachers and students converge on and differentiate from spoken communicative practices by developing on-line communicative variants of teacher- and learner-generated communication in text-based asynchronous CMC. From this study, Blanchette recognized how "text-based interaction closely resembles spoken discourse, in that a variety of acts and moves contribute to a complex and dynamic interaction, [yet] the underlying structure of the interaction differs" (p. 404). Blanchette's study clarifies how the lack of empirical support for written conventions of communicating through email by focusing on variation in online communicative practices.

In short, on the relation to the written dimension of email, the medium allows time for L2 learners to think of and compose their discourse prior to communication. However the need to foster relationships, exchange information and respond accordingly, without spoken communication, highlights potential limitations to using email in L2 teaching. This paper will thus review several practices that highlight the need for L2 leaners to emulate a native speaker's written style regarding communication through email.

Leahy (2001) asserts, email "communication enables students to set their own pace, provides time for them to comprehend, reflect and to compose several drafts. It also provides the opportunity to check facts and, in the case of [L2] learning, to analyse and/or copy native speaker style" (p. 17). Leahy further alerts us to the fact that "native—non-native speaker communication is on one hand demanding for non-native speakers, but may become quickly

demotivating for native speakers, since a parity regarding subtleties of content might not be possible to achieve consistently" (p. 18). Rather than merely focusing on mimicking a native speaker's written style, Leahy presents compelling evidence for email being a more context rich environment than other written correspondence. The students who participated in Kitade's (2006) study experienced a similar process when instructed in writing email. During her study Kitade's students "used innovative strategies that took advantage of three major features of asynchronous CMC: (a) extra time for comprehending, planning, and producing the messages, (b) the text-based nature of the medium, and (c) the unavailability of nonverbal cues" (p. 337). This process also emphasizes how email is contingent on the following additional "characteristics: (a) acceptance of one's own culture by one's partner, (b) the development of distancing, and (c) dialogic interaction" (O'Dowd, 2003, p. 136).

As González-Bueno and Pérez (2000) demonstrate how "The text-based nature of the language produced through CMC offers advantages for [L2] learning by making the written performance available for detained revision and, hence, for accuracy improvement", there remains potential to isolate the written performance from speaking (p. 190). This in turn may enrich one's development of both language accuracy and fluency. Starting with González-Bueno and Pérez's (2000) study, it seems evident that email and writing are separate communication registers; although "in e-mail, as in a standard writing situation, the listener is absent, but unlike standard writing the listener can reply 'almost as quickly' as in the oral modality" (Volckaert-Legrier et al, 2009, p. 178). Communication through email allows an L2 learner greater control in language accuracy when communicating than speech yet less control when communicating using other writing conventions. Although there are several incidents of both spoken and written conventions defining how communication through email is realized, the pragmatic considerations of language style and target L2 culture remain as pedagogical barriers when both conventions are simultaneously considered.

Autonomous Interaction

This section will demonstrate how autonomous communication through email, independent of classroom instruction, still fosters cultural exchanges while failing to reinforce the acquisition of pragmatic competence in L2 learning. For a definition of this communication, the participants in Akbulut's (2008) study indicated how they:

> showed a genuine interest in their partners' life and culture. They sought and offered advice and exchanged personal information, in addition to information relating to other topics. These participants were eager to discover each other's views on different issues and events and each other's opinions on education, politics, films, music, newspapers

and magazines, sports, hobbies, festivals, customs and traditions. Idioms, expressions and stereotypes were also openly discussed. (p. 375)

The meaningful interaction reported by Akbulut clarifies the idea of culture to one of interlocutors exchanging their opinions regarding daily life as well as colloquialisms used in their own first language. Studies regarding email communication, however, diverge when describing the pragmatic qualities of written language in email, particularly when comparing student-to-teacher in contrast with student-to-student or native-to-non-native speaker dyads. Fukuya and Martínes-Flor (2008) recognize that when L2 learners were not provided with explicit instruction of pragmatic communication used for email correspondence "the participants [in the study] were free in the way they made a suggestion to an interlocutor of equal or higher academic status" (p. 482). Whereas Shang (2007) reported how "students gave each other a great deal of feedback of different kinds and demonstrated a great sense of responsibility" (p. 81). Kitade's (2006) study focuses on two factors governing "the discourse structure of negotiations in emails" and indicates how non-native speakers abandon negotiation routines: "one is their failure to identify signals or forgetting to reply; the other that they were incapable of providing responses in the target" L2 (p. 324). She further demonstrates that due to "The absence of explicit negotiations may imply that [non-native speaking students] were not under pressure to explicitly state their inability to respond probably because of the long intervals between messages" (p. 325). The studies mentioned above report how L2 learners, without explicit instruction otherwise, omit pragmatic considerations when communicating through email with either teachers (Fukuya & Martínes-Flor, 2008) or native speakers of their L2 of use (Kitade, 2006).

Moreover, Blanchette's (2009) diagnosis of student-to-student interaction yields a multitude of evidence indicating that "Neither closed questions (those that can be answered with a 'yes' or 'no') nor display questions (those that have a 'right' answer that can be reproduced verbatim from a textbook) appeared to stimulate learner-learner interaction" (p. 404). Although recognizing that face-to-face and CMC constitute different interaction mediums, Blanchette further argues that "An instructor facilitating face-to-face interaction would rarely initiate a discussion by posting a long list of questions at the onset of class. A more common strategy would be to let the discussion evolve more gradually and ask questions as needed to advance the conversation" (p. 405). Blanchette's study cites a similar lack of engagement reported by Fukuya and Martínes-Flor (2008): the absence of pedagogical intervention yields a lack of L2 learner participation in using asynchronous CMC.

On the contrary, though, Lawrence (2002) reports how students benefit when email is integrated successfully into the L2 classroom and asserts "once students have been exposed to this type of authentic communication it is likely they will want to use it more" (p. 471).

Akbulut (2008), connects the idea of L2 learner autonomy by noting when an L2 learner had access to a computer outside of the learning context it would aid L2 "teachers [to] enhance students' motivation" (p. 10). These studies have shown that although there is the requirement for students to engage with CMC, there is no doubt that communicating through email "can improve communicative language proficiency" by motivating L2 students to study their target L2 on their own (Leahy, 2001, p. 16). The benefit of incorporating pragmatic instruction in communication through email, despite claims reporting the opposite (Kitade, 2006; O'Dowd, 2003), is the improvement of technological integration into the L2 learning environment. A review of this integration is warranted.

EMAIL AND L2 TEACHING: FUTURE RESEARCH

Even though there is consensus in that communication through email allows teachers to promote extensive L2 collaborative learning, how email is integrated in the L2 classroom varies. This section will demonstrate how the knowledge regarding the integration of email into L2 classrooms remains limited and discusses the potential for further research. As Dooly (2007) states, L2 "teachers are discovering ways to use computers to help their students engage in authentic language use with other learners in different parts of the world" (p. 57). She recognizes the need for the development of pedagogical techniques and the importance of using CMC for L2 education in order to develop "new knowledge and confidence in the use of Internet tools for L2 learning and teaching" (p. 59). Dooly's study illustrates how the potential for research especially at the classroom level remains to be conducted: instead of using CMC as a substitute for communication one has to utilize its benefits to augment L2 learners' development in acquiring their target L2 (Dooly, 2007). In our personal and professional lives CMC is integral to our day-to-day activities: thus, our capabilities in CMC are both transferable and transformative in the sense that we can reshape our pedagogy to better facilitate L2 learning. In response to the recognition that there is variation of integrating CMC into the L2 learning environment, Dooly (2007) did extensive research on linking intercultural communication with CMC, with the aim to provide "a platform for the students and teachers to explore social and cultural aspects of the use of the target" L2 (p. 60). The study was aimed at L2 teachers interested in collaborative learning and language awareness.

Thus far the practice of integrating CMC into L2 learning has been to simply include email into L2 teaching as a substitute for communication while failing to declare a perspective beyond the notion that *further research is required*. One area concerns issues of linguistic politeness used to facilitate communication within, for example "a single higher-education

institution" (Stephens et al, 2009, 321). This area warrants attention while being restricted by "ethical hurdles" (Biesenbach-Lucas, 2007, p. 76); as Biesenbach-Lucas concedes, "it would be worthwhile to examine email messages sent to different faculty members to investigate how faculty gender, age, and field might influence students' email messages" (p. 76).

Another area concerns when L2 learning is combined with explicit cultural exchange; in other words, learners can engage in reciprocity by reflecting upon their own culture and convey this information through an L2 language via CMC (Kitade, 2006; Leahy, 2001; Sabieh, 2002; Torii-Williams, 2004; Vinagre, 2005) yet studies fail to elaborate on how students should critically reflect. Nonetheless, all of the activities mentioned in this paper are consistent with Warschauer's (1997) view that CMC allows for collaborative language learning: "A well designed, intelligently implemented research effort, facilitated by the easy archiving and analysis of electronic communication, will help guarantee that we learn as much as possible from technological change" (p. 478). Likewise, email has also been regarded as one step for a series of innovative practices employing, for example, online discussion board assignments (Dooly, 2007) or teacher-generated newsletters (Lawrence, 2002).

Unless one is to conduct their own research by replicating previous studies, however, the studies mentioned in this review only begin to illustrate how the use of email could expand the boundaries of L2 learning. There exists a dearth of studies that have attempted such a shift into, for example, expanding pragmatic awareness. Specifically, works that delve into the topics of email and the acquisition of pragmatic routines (Biesenbach-Lucas, 2007) email and the distinguishable negotiation structure (Kitade, 2006), or email and enhanced language development (Shang, 2007) are three explicit cases of successful expansion of research. In keeping with the theme of this review I believe that communicating through email can yield tremendous results in understanding the relationship between asynchronous-communication and L2 acquisition.

CONCLUSION

It has been put forth in the above discussion that communication through email facilitates L2 learning, but how email is utilized inside and outside of L2 classrooms varies. The explicit use of communication through email is often ignored in L2 learning because the practice of integrating CMC into L2 teaching remains as a substitute for communication. However, as this paper has shown, there are significant advantages to using CMC in many L2 classrooms and thus the potential to improve L2 learning. This paper has introduced both

theoretical and practical dimensions of communication through email as a pedagogical tool that is believed to be effective for L2 learning when used for collaborative language learning (Warschauer, 1997).

This paper discussed how email functions as a sub-genre of discourse, which uses both spoken- and written-interaction (Warschauer, 1997), where the communicative practice of the medium needed to be understood from a pedagogical and pragmatic perspective. It has been shown when describing the pragmatic qualities of written language in email, in the cases where student-to-teacher or native-to-non-native interaction occurs, there are pedagogical considerations regarding when L2 learners omit pragmatic considerations without explicit instruction to otherwise. Although successful communication through email may promote autonomous L2 learning, the success of computer-mediated L2 learning should remain at the classroom level in which the teacher can directly instruct their students in successfully using CMC. In other words, it appears that communication through email is most effective when it is blended with explicit instruction and autonomous practice (Fukuya & Martínes-Flor, 2008; Kitade, 2006). The potential for future research was also examined which can help researchers and L2 teachers alike to develop pedagogical tools facilitating L2 learning, autonomy, and CMC (Biesenbach-Lucas, 2007; Kitade, 2006; Shang, 2007).

Additionally, the ability for L2 learners to willingly pursue email as a communication medium is vital because there is strong evidence that the interaction serves to teach about culture in addition to learning an L2. As Akbulut (2008) and Vinagre (2005) illustrated, there is a positive correlation between reciprocal language practice and communication through email, which in turn will lead to better proficiency in acquiring an L2. It has been argued that communication through email outside of the L2 learning classroom motivates L2 learners to participate in authentic conversation with other interlocutors and, based on this assertion, one's personal, linguistic, and sociocultural information will be conveyed while participating in L2 learning. However, it should be noted that there is no one definition for communication through email. While some of the studies consulted in this discussion assert that email remains an informal communications medium (Sabater et al, 2008; Shang, 2007), the studies consulted in this paper have all been proven to support Warschauer's (1997) view that CMC facilitates collaborative language learning.

Within this paper some of the approaches to utilizing email in L2 learning have been acknowledged. However, it was the goal of this paper to bring awareness to the importance of email's role in L2 learning and to facilitate an understanding of how it is practiced inside and outside of the L2 classroom. The main assertions made in the discussion was the fact that CMC is integral to everyday life and that any pedagogical innovations are solely up to the discretion of the L2 teacher: as our capabilities in CMC are both transferable and

transformative we are in the best position to reshape our language classrooms in order to better facilitate L2 learning. With this knowledge, researchers and L2 teachers alike have another pedagogical tool that facilitates L2 learning to use at their discretion.

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