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1. INTRODUCTION

Computer technology has been rapidly developing recently, and it has also influenced on the language teaching field, especially over the past decade. It could offer various new pedagogical possibilities and many teachers have developed creative ways of using computers in their classrooms. On the other hand, many other teachers are still skeptical about the value of computer use. According to a survey, 59% of foreign language programs and 65% of ESL programs used no computer technology in their classes (Kern & Warschauer, 2000). The simple question everybody has in mind would be: Can the computer make better language learning possible, and if yes, how? In the meantime, over the past quarter century, language teaching has been going through dramatic changes in theories and practice, which raises another question: How can computer use fit into any of these paradigms in language teaching? The important premise of computer use in language teaching is an understanding of pedagogy and the relationship among teaching and technology, both in theoretical and practical terms.

It seems that one area where computer assisted language learning has traditionally caused inhibition among some people is its "inhuman" images—learning through self-contained applications such as tutorials, drills, tests, and so on. However, it can also present great potential as a real people-to-people communication tool if we look into its networking capabilities. In this paper, one

application of the use of computer networking in EFL writing class will be presented. It is e-mail exchange with people abroad; i.e., computer-mediated dialogue journals, done for the purpose of cross-cultural communication. The purpose of this paper is to provide theoretical backgrounds of writing pedagogy and to frame a conceptual rationale for network-based students' intercultural dialogue journals in writing class.

First, the overview of the two basic approaches in writing pedagogy — the product approach and the process approach — will be presented. Dialogue journals are one practical implementation of the process approach. What they are and how they can benefit language learning will be discussed. Further, it will be argued that e-mail exchange, which is considered to be one variation of dialogue journals, can provide even better language learning environments. Its advantages and some potential problems will be delineated.

2. PRODUCT APPROACH VS. PROCESS APPROACH

Some researchers say writing is the most difficult of the four skills as it is a very complex activity and it cannot be naturally learned even in L1 (Kitao & Saeki, 1992). Theories about teaching writing have been developed but they are rather "disparate and constantly evolving" (Ferris & Hedgcook, 1998, p.2), so the teacher has to "consider a variety of approaches, their underlying assumptions, and the practices that each philosophy generates" (Raimes, 1991, p.412). Yet, in the history of both L1 and L2 writing, there have been two major frameworks of teaching: the product approach and the process approach.

Until the early1980s, L1 writing classes were mainly based on the product approach, which is also known as the skill-based approach or the traditional paradigm in teaching writing (Bloom, 1976; Strech, 1994). Its emphasis is on the finished product of the writing, and the teacher followed prototypical model of instruction and a rigid prescribed sequence of skills; and writing classes consisted mostly of learning isolated skills such as grammar skills, morphological knowledge,

rhetorical patterns, and so on. The underlying assumption of this approach was that students' written products are "static representations of their knowledge and learning" (Ferris & Hedgcock, 1998, p.3).

L2 writing also followed the same approach. The trend can be traced to the audiolingual tradition in L2 teaching in which the writing class's role was to reinforce oral patterns of accurate grammatical forms (Raimes, 1991). The focus was on the production of sentences in correct forms; and the classroom tasks were mainly controlled compositions that were designed to make students practice syntactic patterns and lexical forms (Kroll, 1991). The product approach reflects traditional, teacher-dominated approaches in general where the teacher's role was principally to evaluate whether students' writing was "correctly" written.

In the 1980's, in both L1 and L2 writing, there was a revolutionary shift in pedagogy. The new model called the process approach emerged. Its emphasis was placed on the process of writing itself, such as brainstorming, planning, writing drafts, revising, gathering feedback, and editing the text (Raimes, 1985; Zamel, 1983). The presupposition of this approach was the view of writing as an evolving process as the writer finds and molds the meaning of the text (Kitao & Saeki, 1992) which is "a process of dialogue between the writer and the emerging text" (Calkins, 1986, p.19).

According to Faigley (1986), advocators of the process approach can be divided into two categories: *the expressivists* and *the cognitivists*. Expressivists view writing as "a creative act in which the process — the discovery of the true self — is as important as the product" (Berlin, 1988, p.484), and they value fluency in writing.

Cognitivists also place emphasis on the writing process but they place more value on higher order thinking skills and their research focuses more on how the writer's mental process develops using problem-solving skills, particularly cognitive strategies. Moreover, one distinguishing feature of cognitivist views of writing theory is that writing has an inherent social aspect where the writer should

be highly aware of the audience (Ferris & Hedgcook, 1998) and that consideration of audience plays a significant role in the writing (Johnston, 1999).

3. AUDIENCE AWARENESS

3.1 Concept of Audience in Language Learning

First of all, let us look at how the concept of audience has been developed in linguistics and is related to language learning in general. Vygotsky (1962, 1978, as cited in Peyton, 1999) argued that all human learning is a social activity in a sense that it is mediated through interactions with other people. In the 1970s and 1980s, a number of studies showed that oral interaction for authentic social purposes is crucial to first language development (Cazden, 1988), and to second language acquisition (Hatch, 1978; Pica, 1991, 1996). In SLA theories they argue that more proficient users of the target language naturally modify their language in order to facilitate the communication with less proficient speakers; including repeating, rephrasing, asking questions, etc. In this way learners receive *comprehensible input* (Krashen, 1981, 1985), which is language a little beyond their current ability and which is believed to facilitate language learning efficiently.

Some other researchers found that language learning must involve not only social interaction but also *purposeful* interaction where the role of the audience is in focus (Ernst, 1994). In linguistics in general, the nature of the audience, especially the nature of the speaker's relation to the audience has been studied and known to have a crucial effect on the forms of language. Within sociolinguistics, variation in audience causes a social and stylistic variation, and a number of theoretical approaches set audience as a central concern. That is to say, speakers consider listeners most when they design their talk and their speaking style is most dependent on variation in audience (Bell, 1984).

In traditional approaches such as grammar-translation and audiolingualism, no real audience exists when learners speak. The content of the message is secondary to its grammatical form and the purpose is to reinforce morphological,

syntactic, or lexical structure. However, the aforementioned stress on interaction in SLA theories, which is the basis of the communicative approach, is rooted in the belief that audience is crucial for language learning,

3.2 Audience Awareness in Writing

The recognition of the importance of audience in language learning initially focused on oral interactions, but eventually it has been expanded to other areas in language learning, too (Peyton & Staton, 1993), and in the theories of the process approach of writing, there has been increasing attention to the issue of the audience, i.e., how writers conceive and adapt to various audiences and what the concept of audience entails (Schaub, 1995), and a number of researchers studied how writers conceive audience while composing and its influence on writing (Coney, 1987). In Scarcella's study (1984), she compared the audience awareness of native English writers with that of non-native writers and concluded that the native English writers were:

better able to predict their readers' personal characteristics, including interests, intelligence, and knowledge of the world In many cases they knew exactly what was expected of them and how to deliver it. Indeed, they sometimes appeared to be able to tailor their essays to the particular interests of their readers (p.684).

Raimes (1985) found that unskilled L2 writers acknowledge a particular readership while composing. Another research study (Roen & Willey, 1988) indicated that audience awareness has an influence on the style and quality of the writing. These research studies seem to suggest that audience awareness is a predictor of successful writing.

4. DIALOGUE JOURNALS

The notion of interaction and the audience has been implemented mainly in speaking class, but how can we incorporate it into writing pedagogy? Many

researchers and teachers have found "dialogue journals" to be one effective application of the process approach, which fit both assertions of expressivists that writers should express their true self freely; and cognitivists - that writers should be aware of the audience. Dialogue journals were originally conceived of as written dialogues between the teacher and a student, writing to each other regularly over a period of time (Peyton, 1987; Peyton & Staton, 1993). The first documented use of dialogue journals was in the 1980s between sixth grade students, both native and nonnative English speakers, and a teacher (Peyton & Staton, 1993) although many teachers reported having communicated with their students through journal writing before this (Peyton, 2000); and the use of dialogue journals has been expanded to various areas in both first and second language instruction. Another version of dialogue journals is letter exchange between older or more knowledgeable students and younger or less knowledgeable ones (Heath & Branscombe, 1985). Dialogue journals are now being used in many different educational settings - with students and students, with children and adults, and in teacher and volunteer training programs (Peyton, 2000).

Besides providing students with the chance of interaction with the audience, dialogue journals provide several other optimal language learning conditions. First, they can give natural contexts for language development and allow students to have the control over the topic. The control over the topic gives students motivation and helps them learn language more efficiently (Johnson, 1989), as it gives students autonomy and is consistent with a learner-centered curriculum. Second, learners can receive new concepts and general writing strategies in a supportive, non-threatening interaction by being engaged in active mental processing with the teacher or other students (Staton, 1984). Third, dialogue journals give students chances to use different functions, which are not usually a part of essay writing: i.e. complaining, encouraging, giving and asking advice, complimenting, negotiating, asking information, and congratulating (Kitao & Saeki, 1992).

Song (1997) did an empirical study on dialogue journals on 207 university EFL students in Korea in which she compared an experimental group who wrote dialogue journals for 10 weeks with a control group who did only conventional writing. Results indicate that the journal writing group progressed better in TOEFL tests, and writing skills. She concludes that use of dialogue journals may be an effective technique in general.

5. E-MAIL EXCHANGE: COMPUTER-MEDIATED DIALOGUE JOURNALS

5.1 Advantages

E-mail exchange with other individuals is considered to be one variation of dialogue journals (Winn, 1998) and is faster and easier than conventional dialogue journals with a pen-and-pencil. Besides these conveniences, it can provide a better learning environment in writing classes. The most significant advantage is that it makes intercultural communication much easier. The role of intercultural aspects in writing has been gradually getting more recognition, as literacy has been increasingly seen in its relation to sociocultural and intercultural competence (Kern & Markchauer, 2000). Schaub (1995) argues that although audience awareness is always the central issue among countless articles and studies on cross-cultural communication, and the social aspects of writing have been recognized as an essential element, the importance of cross-cultural communication in writing classes has been neglected. He states that there are too few studies that provide any specific pedagogical guidance in this issue. He then suggests that dialogue journals with people from different cultures fit the purpose. It can be assumed that although we should include cross-cultural factors in writing classes, there have been physical limitations. However, with a computer network system, we can provide the settings where students can actually have hands-on experiences in intercultural communication. Students can write to their partners regardless of their physical geographical location and time differences, which means that they can increase the range of potential interlocutors, who may be of

any age, background, nationality, and so on. In addition, they can communicate without the communicative pitfalls of pronunciation or accent (Gaer, 1999). The computer expands the possibility beyond the one-to-one written interactions in dialogue journals and allows one-to-many or many-to-many communication with a wide variety of partners (Johnston, 1999). Especially for EFL learners, e-mail makes it easier to find writing partners to write to from all over the world and to write with purposeful meaning. Furthermore, students may find writing partners that are not only native speakers of English, but also other English learners from various countries.

Another advantage of using e-mail is that e-mail projects can provide authentic audience more easily due to the fact that e-mailing is not limited by geographical boundaries. The concept of authenticity is widely acknowledged as an important element in language learning, yet as Widdowson (1990) points out, the concept of authenticity can be elusive because "meanings are achieved by human agency and are negotiable: they are not contained in text" (p.45). Based on this argument, Johnston (1999) claims that authenticity of audience really depends on what the audience itself and defines the criterion of the authenticity of an audience as "whether or not the message is being read or listened to for its meaning" (p.61). With this criterion, the teacher could be an authentic audience only when they are purely interested in the meaning of what his/her students write. This criterion also automatically excludes any evaluations. It is possible, but obtaining an "authentic audience" can be harder if writing exchange is done with a teacher or someone arranged in the scope of an activity in a writing class. On the other hand, with email exchanges, students can find an abundant supply of audience as the computer facilitates one-to-many communication, and also provides rich contexts. From all of the audience population and contexts, naturally the number of writing partners can be narrowed down to the ones who share the same interest or with whom they can get along, as they exchange writings. These audiences are by and large focused on the meaning of messages, so they constitute authentic audiences for the linguistic

production of learners and are expected to increase "the rate and extent of language learning." (Johnston, 1999).

Lastly, another advantage of e-mail exchange is that it can facilitate negotiation of meaning more easily. As stated earlier, interaction has been recognized as a crucial prerequisite for language learning, and many researchers have called attention to the importance of the negotiation of meaning (Long, 1985; Long & Porter, 1985: Pica, Holliday, Lewis, & Morgenthaler, 1989) during interactions. In dialogue journals with a pen-and-pencil, comprehensible input is fairly easily obtained. Especially if a student is writing with a teacher, the teacher's written language can be modified to, but slightly beyond, the student's current expressive level. However, some argue that comprehensible input is not enough for adequate language learning. They encourage learners to produce comprehensible output (Swain, 1985), when they are "pushed toward the delivery of a message that is not only conveyed, but that is conveyed precisely, coherently, and appropriately" (p.249). The learner's use of language during interaction "provides" opportunities for contextualized, meaningful use, to test out hypotheses about the target language, and to move the learner from a purely semantic analysis of the language to a syntactic analysis of it" (p.252). She argues that the ability of learners to comprehend input does not guarantee the acquisition of forms, as learners who are attempting to understand the meaning of a message might not be paying much attention to forms, whereas as for learners who have chances to modify their output during interaction as a result of feedback from native speakers or higher leveled English users, they have to focus on the form of language they speak so that they can produce modified comprehensible output. Through negotiation of meaning, modified comprehensible input and modified comprehensible output can force learners to adjust their interlanguage system so that it gets more targetlike (Holliday, 1999). In spoken language, this negotiation and comprehensible output occur somewhat spontaneously because speakers are doing synchronous (real-time) communication, but in written dialogues, it is more

difficult because the interaction is asynchronous (time-delayed). However, in network-based dialogue journals, computer functions (for example, the quoting function, the cut and paste function, and the quick mail delivery regardless of time differences), the communication can get more synchronous. Therefore, communication with people from different cultures through e-mail can facilitate not only enriched comprehensible input but enhanced output, too, by "helping students enter into many kinds of authentic social discourse situations . . . that they would later encounter outside the classroom" (Kern & Warschauer, 2000, p.5).

5.2 Studies on Cross-Cultural Exchanges via E-Mail

Computer assisted language learning is a relatively new field and research studies on cross-cultural exchanges via e-mail are difficult to carry out, as "they involve assessing the impact of decentralized, autonomous communication that takes place over the course of a semester or longer and that is often initiated outside the normal class place and time" (Warschauer, 1995, p.61). However, there are a few interesting studies conducted by Tella (1992a, 1992b) on intercultural e-mail exchange projects. He concluded that by using e-mail exchange, there were some benefits in his writing classes:

- 1. The emphasis switched from teacher-centered teaching toward a more individualized and learner-centered environment.
- 2. A shift from form to content was achieved.
- 3. The students' whole writing process changed. They got to revise and edit their writings more to make them appropriate for the partners abroad.
- 4. The students increasingly got to make use of more peer tutoring and assist each other to study incoming messages.
- 5. The quality of writing improved as the emphasis changed to real-purpose writing with genuine audiences around the world.
- 6. The modes of writing became more versatile as the students did many styles of writing.

7. The enjoyment of computers and communication with the audience abroad overcame some students' traditional dislike of writing.

Further, Berge and Collins (1995) found e-mail exchanges could accommodate different learning styles and empower learners regardless of social and cultural differences and promote critical thinking as students change from passive learners to active participants. Gaer (1999) points out another benefit that e-mail writings can provide students with skills that they need and are most ready to learn. Students are not equally ready for all aspects of the language at the same time (Holliday, 1999) but e-mail's written messages can be tailored to fit each students' levels in the process of negotiation.

5.3 Potential Problems of E-Mail Use in Class

Although there have been only a few studies on the results of e-mail exchanges in class, some indicate a few possible problems. One difficulty for the language learner is that computer-mediated interaction is intensely grounded in language alone (Johnston, 1999). Without visual cues to provide additional information, learners must judge their interlocutors based entirely on what they write and vice versa. Thus, their communication depends on language even more than spoken communication, and learners cannot use other means such as tones of voice, gestures, or other compensatory communicative strategies that they count on in other settings.

Another is that language mediated via computer is an impoverished, nonstandard variety which is between conventional written and spoken forms (Naumann, 1995) and that it cannot supply learners with suitable second language input. Holliday (1997, as cited in Holliday, 1999) performed an extensive study on this matter. He examined the quality of a large corpus of L2 learners' output taken from e-mail lists for L2 learners' and compared it with that of a corpus of L1 speakers of English. He concluded that by and large, the e-mail messages of L2 learners could provide other learners with grammatical, targetlike input showing a

range of language features similar to those used by first language speakers of English. He argues that:

... overall there seems no reason to believe that the use of English features in computer mediated communications via e-mail are skewed from norms of use by first language speakers of English. And thus there is no reason to believe that second language learners do not benefit from the practice of producing output in e-mail messages nor that they cannot benefit from these same messages as second language input (p.188).

6. CONCLUSION

The history of writing pedagogy shows that focus has shifted from the product approach to the process approach. One characteristic of the process approach is that writing is a social act and that audience awareness plays a significant role. In order to implement this concept, many teachers have adopted dialogue journals. Dialogue journals provide several optimal conditions of language learning. E-mail exchange is one version of them; the underlying concept is basically the same but it is mediated by computer technology. However, the computer's functions can offer even more advantages than conventional dialogue journals. They facilitate intercultural communication, and the learners can communicate with an authentic audience; their communication elicits negotiations between participants in which learners can adjust their interlanguage system via both comprehensible input and output. One difficulty is that the communication is more language based and the learner cannot utilize other communicative Another difficulty is that language used in e-mail may not be strategies. appropriate as input for L2 learners, although there is an empirical study that shows this is not a problem and the language created by e-mail writers is suitable.

Computer assisted language learning is relatively new and the use of e-mail in writing class presented in this paper is just one example out of limitless possibilities. We should not be intimidated by new technology but we should not use it just because it is new or trendy. Educators should make use of computers in

teaching, with a reason based on their beliefs and theoretical reasons. In order to debate what should be adopted in curriculums, we need more results from research and experiments. Further studies and exploration in various cases are needed.

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