

TANDEM LANGUAGE LEARNING THROUGH A CROSS-CULTURAL KEYPAL PROJECT

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Patterns of students' language learning were examined through an asynchronous cross-cultural bilingual communication project conducted between Japanese university students learning English and Canadian university students learning Japanese. Previous studies on cross-cultural communication projects have reported positive outcomes in providing learners with opportunities for cultural and language learning. However, very few, if any, investigated whether a meaning-focused communication project like ours provides similar opportunities for language learning, and if so, what kind of language learning takes place. With focus on Canadian students' learning of Japanese, the present study addressed these questions through analyses of students' logs and message texts. The results indicated that students have opportunities for all aspects of language learning, including vocabulary, kanji, grammar, and phrase/sentential expressions. However, it was also found that the amount and type of incidental learning may depend on the students' proficiency level. Explicit corrections are noticed but often not understood unless clear explanations are given. We suggest these kinds of communication projects might further promote incidental learning opportunities by better understanding the proficiency levels of the other's second language, as well as by more and better incorporation of clear error corrections possibly accompanied by metalinguistic explanations.

INTRODUCTION

A keypal project has been conducted every fall since 2001 between students in a third-year Japanese language course at the University of Alberta (UA), Canada, and students studying English at Doshisha Women's College (DWC) in Japan. This communication project, which we will call the UA-DWC project in the rest of the paper, aims to provide students with an opportunity to freely communicate in the language they are learning. Through message exchanges on a discussion board, students ask and answer questions regarding common topics, such as university life, relationships and marriage. The UA-DWC project takes the form of tandem language learning and is expected to provide an environment for incidental learning whereby students gain linguistic skills while being engaged in meaning-focused exchanges. As such, the project has been sustainable enough to be incorporated as part of the curriculum of the regular course at each institution.

A number of previous studies have argued for students' linguistic gains through similar communication projects (e.g., Greenfield, 2003; Torii-Williams, 2004; Toyoda & Harrison, 2002; Vinagre, 2005), indicating that students would ask each other questions about language use and learn new vocabulary and expressions from their partners' messages. However, most of these studies dealt with monolingual message exchanges between L2 learners and native speakers (e.g., Greenfield, 2003; Toyoda & Harrison, 2002), or with exchanges where the primary purpose of communication was language learning through error corrections (e.g., Torii-Williams, 2004; Vinagre, 2005). Edasawa & Kabata (2007) examined the message texts to determine how students learn from each other through a meaning-focused bilingual communication project, where students are engaged in discussions on certain inquiry topics. Their results indicated that while the project offers ample opportunities for language learning, students rarely corrected each other's errors explicitly, contrary to the findings in the previous literature (e.g., Vinagre, 2005). Instead, students often resorted to implicit corrections, either by suggesting alternative expressions or by

guessing at the questions and providing answers even though the questions contained grammatical mistakes and/or the meaning was not clear.

The purpose of the present study is to further determine how students' language learning takes place in a meaning-focused communication project. With focus on the data from Canadian university students learning Japanese, we are particularly interested in how students might respond to different types of input they receive from their keypals, and what kind of incidental learning might be occurring. Do students learn from keypals' error corrections differently when the corrections are presented implicitly, compared to when they are presented explicitly? Data were collected from students' logs in which they reported what they learned and how. Message texts were also examined in order to crosscheck each entry of the logs. The findings from this study are expected to give us insight as to how a meaning-focused communication project can best be incorporated in foreign language teaching.

PREVIOUS STUDIES

This study is concerned with learning language as a by-product of a meaning-focused bilingual communication project, whereby students are engaged in discussion on common inquiry topics. Such language learning can be considered as *incidental learning*, defined rather loosely as a form of learning that takes place when their attention "is focused on meaning rather than on the form of language" (Hulstijn, 2003, p. 349). Since incidental learning "can occur when one is using language for communicative purposes," it is expected to give "a double benefit for time expended." (Schmitt, 2000 p. 120). The notion of incidental learning is usually considered as contrastive to that of *intentional learning*, which "involves a deliberate attempt to commit new information to memory... [through] rehearsal and/or mnemonic techniques" (Hulstijn, 2003, p. 360). These two notions are often used synonymously with, but should be distinguished from implicit vs. explicit learning, which refers to the absence or presence of *conscious control* or *awareness* at the point of learning, whereas incidental vs. intentional learning is more concerned with the methodology or the form of learning. These two notions are not dichotomous, however, and as discussed later in this paper, an activity may involve more or less incidental learning depending on the amount of focus given to linguistic issues at different times or by different students.

The two notions of incidental vs. intentional learning are also closely connected to, and interact with, the types of information to be learned (the *what* of learning, to borrow Hulstijn's term). While intentional learning is more readily associated with declarative, factual knowledge, such as a list of L2 words, incidental learning can be associated with both abstract and factual knowledge. It is therefore not surprising that previous literature on the notion of incidental learning appears mainly in the area of vocabulary learning (e.g., N.C. Ellis, 1997; Gass, 1999; Huckin & Coady, 1999), and very rarely in the area of grammar, as maintained by Hulstijn (2003). It seems generally agreed that at least for second language learners, both intentional and incidental learning are necessary and should be considered as complementary, since, as Schmitt stated, "some explicit [and intentional] learning is probably necessary to reach a vocabulary size 'threshold' that enables incidental learning from reading" (2000, p. 121). Huckin and Coady went as far as arguing that "incidental acquisition is the *primary means* by which second language learners develop their vocabulary beyond the first few thousand most-common words [*italics ours*]" (1999, p. 190). While there is no consensus as to how much and what kind of exposure is needed to promote incidental learning (cf. N.C. Ellis, 1997; Gass, 1988, 1999), incidental learning has certain advantages over direct instruction. Thus, Huckin and Coady (1999) stated:

[Incidental vocabulary learning] is (i) contextualized, giving the learner a richer sense of a word's use and meaning than can be provided in traditional paired-associate exercises; (ii) pedagogically efficient in that it enables two activities – vocabulary acquisition and reading – to occur at the same time; and (iii) more individualized and learner-based because the vocabulary being acquired is dependent on the learner's own selection of reading materials" (p.181)

Loewen (2005) and Lee (2008) are among the few studies that investigated how incidental grammar learning might take place in second language teaching. Loewen (2005) examined how learners deal with corrective input they receive from teachers while they are engaged in meaning-focused activities in a face-to-face setting. Data from 17 hours of observation of teacher-learner interactions contained 491 *focus-on-form episodes*, and in delayed tests, learners were able to recall the targeted linguistic information correctly or partially correctly more than 50% of the time. Loewen concluded that incidental focus on form is beneficial, especially when learners successfully incorporate the linguistic information in their production (2005, p. 382). While Loewen's study dealt with teacher-learner interactions only, similar results were obtained by Lee (2008), who examined data from novice Spanish learners' interaction with native speaker peers via synchronous computer-mediated communication (CMC) using chat. A frequency count of the instances of learners' self-repair and incorporation of corrected forms revealed that, equipped with opportunities for learners to read and reflect on linguistic forms, CMC "provided favorable conditions for feedback negotiation between the expert-to-novice pairs and also focused learners' attention on their linguistic errors" (2008, p. 66). It was also found that the task types influenced the amount of learners' self-repair: Open-ended question yielded the most self-repairs, followed by jigsaw; and spot-the-differences yielded the fewest self-repair moves. Lee (2008) suggested that learners might not be able to pay attention to the meaning and the form simultaneously, particularly when they were engaged in meaning-focused activities (2008, p. 58).

Central to these studies, as well as the present study, is the role of input in second language acquisition. Gass (1988) claimed that there are five levels in a learner's conversion of ambient speech (input) to output: (a) apperceived (or noticed) input, (b) comprehended input, (c) intake, (d) integration, and (e) output. It should be noted that comprehended input (learners' understanding of the meaning) becomes intake, but not all input which is comprehended becomes intake. Thus, according to Gass (1988), "intake is viewed as the process of assimilating linguistic material", and in that sense, it is not merely a subset of input, but "a process of mental activity which mediates between input and grammars" (p. 206). Within this framework, apperceived (or noticed) input plays a significant role at the initial stage of learning because without noticing there is no learning. Equally important is the role of corrective input and negotiation, through which learners recognize their own errors or knowledge gaps, according to Gass (1999). Gass (1999) thus stated that recognition "of a need to learn (i.e., a gap) is the first step in actual learning"(p. 324), because only then is input made available for learning.

From the perspective of second language acquisition studies, a communication project like ours might be expected to provide an ideal opportunity for incidental learning, where learners are exposed to various input given by their peers through e-mail exchanges. However, while many studies reported a positive outcome, by helping students with their understanding of the target culture (e.g., Itakura, 2004; Jogan, Heredia, & Aguilera, 2001; Torii-Williams, 2004), or with their language skills (e.g., Greenfield, 2003; Van Handle & Corl, 1998, Vinagre, 2005), very few, if any, examined students' language learning in meaning-focused communication projects via bilingual exchanges as in the case with the UA-DWC project.

Little, Ushioda, Appel, Moran, O'Rourke, and Schwienhorst (1999) conducted a seven-month-long research study on the effects of a bilingual e-mail project between a university in Ireland and one in Germany. After a careful examination of 194 e-mail messages, they found 45.4% of the messages contained corrections, concluding that "error correction is the central overtly pedagogical element of a tandem partnership" (p. 39). In the cooperative project conducted by Van Handle and Corl (1998), students in intermediate German classes at two institutions in the U.S. read the same texts and then responded to them by sending written comments in German via e-mail to both classes using a mailing list. Students were also required to submit weekly *Kommentare* or journals, which were marked for grading. Based on the students' journals, Van Handle and Corl summarized the benefits of the project as: (a) a noticeable increase in students' use of risk-taking strategies in language learning activities in class; (b)

richer, though not necessarily more accurate oral exchanges; (c) increased use of new vocabulary and structures that had appeared in the readings; and (d) demonstrably better compositions that benefited from the additional communicative opportunities.

Similar results were found by Vinagre (2005), who carried out a tandem learning e-mail exchange program lasting for 12 weeks between Spanish students learning English and American students learning Spanish. Thirty-two students in each institution were paired one by one based on the students' similarities in terms of learning targets and level of proficiency in their target language. The students were required to exchange a minimum of two e-mails a week, the copies of which were sent to the instructors simultaneously. In addition, they were encouraged to visit a "common room" on the Internet, where all the students involved in the exchange could meet. In the "discussion forum" of the "common room", students could post messages and exchange information throughout the semester. An examination of message texts indicated that there were a number of incidents of error corrections, although not all the errors were corrected. It was further found that students "gave priority to the correction of those errors that were crucial for communication purposes, whilst overlooking those which were either unimportant or whose presence did not obscure the meaning of the message" (pp. 366-367). Nonetheless, data from students' self-evaluation questionnaires revealed 77% of the students perceived a clear improvement of their level of proficiency in the target language.

Thus, previous studies indicated positive results in students' language learning in communication projects where the primary purpose of communication was language learning, often through open-ended discussions. Edasawa and Kabata (2007) found that the students learned a great deal through meaning-focused exchanges both at the vocabulary- and syntactic-level. However, they also found that explicit error corrections between students were rare, and students seemed to prefer being indirect in correcting each other's errors. At the same time, as Schmitt (2000) argued, learners might not be able to take full advantage of learning opportunities unless they have a large enough vocabulary or linguistic knowledge. Drawing on the findings of these previous studies, this study makes a further investigation of the patterns of students' language learning in a meaning-focused communication project.

THE PRESENT STUDY

The present study aimed to determine the patterns of students' language learning in a cross-cultural communication project. Specifically, the following three questions were addressed: (a) what kinds of linguistic items are learned through the keypal project?; (b) do students recognize and learn from keypals' corrective input differently when they are presented explicitly as opposed to when they are presented implicitly without overt indication?; and (c) what kind of incidental learning, if any, is observed?

In Edasawa and Kabata (2007), we found that the UA-DWC project provides ample opportunities for language learning, very often through keypals' implicit corrections. However, it was not clear by solely looking at the message texts whether students recognized their keypals' corrections when presented implicitly (or even explicitly), unless a student clearly incorporated the correction in the following message, or overtly acknowledged the partner's corrections. Therefore, in the present study, we asked students to keep and submit their logs in order to obtain more direct information as to how students perceive the input they receive from their keypals. Each entry was checked against the corresponding message texts for confirmation and additional information, if applicable. While this study does not directly investigate what is *learned* by the learners through the e-mail exchanges, nor should the logs be regarded as suggesting how they perceive *all* the input, either explicit or implicit, the results are expected to help us understand how students perceive the input they receive from their keypals.

UA-DWC Project

The UA-DWC project is conducted every fall for about 8 weeks from early October to the end of November, which is the maximum length possible because of the different academic calendars and

systems of the two institutions. The project takes the form of tandem learning, or “a form of open learning in which two people [or groups] with different mother tongues work together in order to learn one another’s language” (p. 10), as defined by Little and Brammerts (1996; see also Little et al., 1999). Participants are students enrolled in the third-year Japanese language course at UA, and those in the third- or fourth-year English communication course at DWC. Students are instructed to exchange messages using both English and Japanese, to post questions in the language they were studying, and to answer their partners’ questions in their native language. For example, in replying to a message from a UA student, a DWC student would answer the questions in Japanese, and then ask her questions in English. Students are encouraged to help their partners’ language learning by correcting their errors whenever possible, but no specific instructions are given as to how. Students use a discussion board that has been integrated within the WebCT courseware operated by the UA. Each group is provided with their own discussion board which both UA and DWC students access by logging-on with their own passwords.

Students form small groups of 4 to 5 members, normally consisting of two or three UA students and two or three DWC students. The groups are formed so that members of each group work on a shared inquiry topic, which may range from “differences in men and women’s communication” and “perception of silence in discussion” to high school and university student life, to women’s roles in the family and society. The DWC students, whose course starts in April, will decide on their inquiry topics individually and the instructor will form small groups of those with similar interests during the summer. Then in September, at the beginning of the course, UA students are divided into small groups and are partnered with the DWC groups of similar research interests. It is expected that by sharing inquiry topics, students will gain rapport with their partners easily and express their ideas and opinions openly. In addition, the group system helps avoid a situation where one or two uncooperative students would derail the entire communication, as experienced in the initial year of the project. UA students are required to give a group presentation at the end of the term, followed by individual essays. This work, along with the learning logs, counted as 20% of the final grade: 8% each for the presentation and the essay, and 4% for the learning logs. DWC students are required to write an individual research paper. The paper is worth 40% of the final grade of the class, and students are expected to use the information they obtain through the keypal exchanges as part of the resources. Students are also given project participation marks up to 20%.

Data Collection

The data for the present study were collected between the second week of October and the end of November 2006. Participants were 40 UA students (16 male and 24 female) and 35 DWC students (all female), who were divided into 16 groups.

UA students were required to submit learning logs four times during the project period, roughly once every other week to report what they learned through e-mail exchanges. As mentioned above, students received up to 4% from submitting learning logs, with 1% of the grade given to each submission as a participation mark regardless of the content of the log. Though it was not possible to obtain an exhaustive list of items students learned through the project, four logs were deemed to be appropriate in order to collect enough data for the study without being overwhelming to the students.

The [Appendix](#) shows the template of the learning log students were provided with. Each entry in the students’ log was identified in terms of two criteria: (a) what linguistic items they learned (learned items) and (b) how they learned them (learning styles). Both linguistic items and learning styles were categorized into four types respectively, as shown in Table 1 below:

Table 1. *Categories Used for Students' Learning Logs*

Linguistic Items	
V	Vocabulary
K	Kanji (Chinese characters) and spelling
G	Grammar, such as particles and verb inflections
E	Expression at the phrasal and sentential levels
Learning Styles (LS)	
LS-I:	Learned through explicit error corrections by keypal
LS-II:	Noticed own error without keypal's explicit correction
LS-III:	Learned through Q&A with keypal
LS-IV:	Other (students were asked to specify 'how' they learned)

The categorization of the entries into the four linguistic items was not as straightforward as one might hope; new vocabulary was often learned in Chinese characters, which may or may not have been familiar to students. We have categorized an item as *K* only if the students indicated that the word itself was familiar to them but learned the correct spelling for it, either in Chinese characters or in katakana. When a student missed a double consonant (realized as small *tsu* in Japanese) or a long vowel in katakana or hiragana spelling, it was also categorized as *K*. Similarly, grammatical items at the morphological level (i.e., within a word) or within a construction (a string of words) would be categorized as *G*, while those which dealt with expressions at the phrasal or sentential levels were treated as *E*.

DWC students were also asked, but not required, to submit logs, using a format similar to the one for UA students. They were instructed, however, to report not only what they learned from their partners' input to their English, but also what errors they noticed of their partners' Japanese. Since this study focused on the UA students' learning of Japanese, we were only interested in the latter part of their logs.

Message texts were also collected and checked against each entry in the log. Only the entries students reported in their logs were subject to further analyses. While instances were found where students used an expression that they had possibly learned from their keypals' input, it was not possible to determine whether the item was actually learned from the keypals' input or from other sources (e.g., from the textbook, classroom discussion, etc.).

Results

In total 370 entries were collected from the learning logs submitted by UA students and 62 entries from those submitted by DWC students. The overall distribution patterns of UA students' logs are summarized in Table 2, with sample entries for each learning style shown in Table 3. Table 4 provides a summary of the 62 entries submitted by DWC students.

Table 2. *Overall Distribution of Students' Learning Logs*

	Vocabulary	Kanji	Grammar	Expression	TOTAL
LS-I	21	3	59	34	117
LS-II	7	1	8	3	19
LS-III	18	0	0	6	24
LS-IV	158	18	13	21	210
TOTAL	204	22	80	64	370

Table 3. *Sample Student Learning Log Entries by Learning Style and Learned Item* (The part that was written in Japanese in the original text is indicated in italics, with added translation indicated in [].)

Learning Style /Learned Item	Sample Log Entry
LS-I/G	<p><i>“watashi wa senshuu senkou o kaemashita”</i> or <i>“senkou ga kawatta.”</i> [“I changed my major” or “my major changed”] She reminded me of the importance of transitive and intransitive verbs, which I often forget and am mixed up with.</p> <p>(SUA1: Log #2, Oct 18)</p>
LS-I/E	<p><i>“watashi no kompyuutaa ni wa chiisai mondai ga aru n deshita.”</i> → <i>“watashi no pasokon, chotto okashikatta no.”</i> [Lit: “There was a small problem with my computer.” → “Something was wrong with my computer.”] My keypal corrected my error in the previous message.</p> <p>(SUA2: Log #3, Nov 12)</p>
LS-II/G	<p><i>“shitsumon o kotaete kurete”</i> → <i>“shitsumon ni kotaete kurete”</i> [“(thank you) for answering of my question” → “.. for answering (to) my question”]</p> <p>(SUA4: Log #3, Oct 30)</p>
LS-II/E	<p><i>“Kotae o yomu to onaka ga gorogoro suru”</i> should be <i>“onaka ga guuguu”</i> [“When I read your answer, I have a stomachache” should be “...I feel hungry”] My keypal corrected my error in the previous message.</p> <p>(SUA5: Log #4, Oct 26)</p>
LS-III/V	<p>Vocab. Easy-going in Japanese means MAI PEESU.</p> <p>(SUA6: Log #3, Nov 10)</p>
LS-III/E	<p>Expression. I wrote <i>“omiyage no kotonara</i> [in regards to souvenirs] <i>Is kotonara correct?”</i> → <i>“omiyage ni tsuite”</i>. I learnt that the more natural way of saying “In regards to souvenirs.”</p> <p>(SUA7: Log #2, Oct 31)</p>
LS-IV/V	<p>Vocab. “ARUBAITO o mijikaku shite BAITO to iu.” [ARUBAITO can be shortened as BAITO]</p> <p>(SUA8: Log #1, Oct 11)</p>
LS-IV/G	<p>Grammar. “daigaku o sotsugyoo shita ato, etc.” [after (I) graduate a university, etc.] Understand the use of past form before a time noun better.</p> <p>(SUA9: Log #4, Nov 17)</p>
LS-IV/*G	<p><i>atarashii bumpoo</i> [new grammar]: listing using SA. <i>rei</i> [example] : <i>yasashisa, seijitsusa, nandemo iidesu</i> [kindness, loyalty, anything is ok] Keypal used it and I learned it from context/keypal’s translation.</p> <p>(SUA10: Log#1, Oct 13)</p>

Table 4. Overall Distribution of DWC Students' Logs

	Correction provided			Correction not provided	Total
	Explicit	Implicit	Subtotal		
Number of entries	29	13	42	20	62
Acknowledged by UA students	18	0	18	0	18
Linguistic Categories					
V (vocabulary)	4	3	7	3	10
K (kanji and spelling)	1	4	5	4	9
G (grammar)	12	5	17	10	27
E (expressions)	12	1	13	3	16

As shown Table 2, students reported vocabulary learning most frequently, at 204 times or 55% of all the items reported in the UA students' learning logs. Students also reported learning of the grammatical aspects of the language at 80 times or 22 %, and phrasal and sentential level expressions at 64 times or 17% of all the entries.

117 entries were associated with keypals' explicit error corrections (LS-I). This number was somewhat larger than had been anticipated based on the previous study (Edasawa & Kabata, 2007), in which we found very few instances of keypals' explicit error corrections. It is possible that the language logs compelled students to correct their keypals' errors more explicitly or to ask for corrections. As shown in Table 2, explicit error corrections (LS-I) were most frequent with regard to grammatical aspects of the language use at 59 times. They included transitivity of verbs and particle use, as well as tense and aspect. Explicit error corrections were also made of expressions (34 entries), and vocabulary choice (21 entries), as well as kanji use (3 entries). The dialogue in Sample Entry 1 is taken from the message texts that correspond to the entry in which the UA student (SUA1) reported her learning about the transitivity of verbs from her DWC student keypal's (SDWC1) explicit correction of her error. The original messages were written using Japanese characters. The parts of the messages that are relevant to the discussion are indicated by underlining.

Sample Entry 1

Student	Japanese entry	English gloss
SUA1:	<i>watashi wa senshuu senkou o kawatta.</i>	"I changed (Vi) my major last week"
SDWC1:	<i>nihongo o naoshite oku ne. senkou o kawatta</i> " → " <i>watashi wa senshuu senkou wo kaemashita</i> " or "... <i>senkou ga kawatta</i> " <i>ni suru to wakariyasukunaru to omou.</i>	" <u>I will correct (your) Japanese.</u> " "... It is easier to understand if you say ' <u>I changed [Vt] my major.</u> ' or 'My major <u>changed [Vi]</u> ' (instead of saying) ' <u>I changed [Vi] my major.</u> '"
SUA1:	<i>oshiete kureta no koto [sic] arigatou? watashi wa yoku konnakoto ga machigatteru ne. <u>tadoushi to jidoushi, muzukashii naa!</u></i>	"Thank you for teaching me. I often make mistakes of this kind. (The distinction between) transitive vs. intransitive verbs is difficult!"

SDWC1 points out that the Japanese verb *kawaru* "change" is an intransitive verb and therefore SUA1 should use the subject marker *ga* instead of the object marker *o*, or use the transitive version of the verb

kaeru “change.” In receiving explicit corrections, SUA1, like most students, acknowledges the keypal’s corrections in her responses and thanks her, as illustrated in Sample Entry 1. However, it is difficult to determine whether students actually learned these items because they rarely incorporated the corrected forms in their own messages or used them in later messages.

The students may have missed a chance to use the particular item because of the change of topic in the following exchanges. Only 19 entries were associated with students noticing their own errors from the keypals’ responses but without explicit error corrections (LS-II). Eight entries were concerned with grammar learning, and seven with vocabulary. There were three entries dealing with expressions and just one with kanji. Sample Entries 2 and 3 illustrate the message exchanges in which SUA4 and SUA5 indicated noticing their own errors, with a particle choice in Sample Entry 2 and with an onomatopoeic expression in Sample Entry 3.

Sample Entry 2

Student	Japanese entry	English gloss
SUA4:	<i>boku no mae no shitsumon o kotaete kurete arigatou gozaimashita.</i>	“Thank you for answering <u>of</u> my previous question.”
SDWC4:	<i>henji ga osoku natte gomennasai. watashi no shitsumon ni kotaete kurete arigatou. mata shitsumon suru no de henji onegai shimasu.</i>	“Sorry for a late response. Thank you for answering <u>to</u> my question. I hope you will answer my question again.”
SUA4:	<i>boku no mae no shitsumon ni kotaete kurete arigatou gozaimasu. boku no saigo no shitsumon desu.</i>	“Thank you for answering <u>to</u> my question. Here is my last question.”

Sample Entry 3

Student	Japanese entry	English gloss
SUA5:	<i>...kotae o yomu to onaka ga gorogoro suru. watashi wa Mars ga suki!!</i>	“...Reading your answer gives me <u>stomachache</u> . I love Mars!!”
SDWC5:	<i>onaka ga gorogoro? onaka ga sukutte koto kana? gorogoro wa onakaga itaitoki ni tsukau kamo.</i>	“ <u>Stomachache</u> ? Do you mean <i>hungry</i> ? <i>Gorogoro</i> may be used when you have a stomachache.”
SUA5:	<i>taihen nihongo o machigatta yan. onaka ga gorogoro ja nakute oishisouni mierukara tabetaiyo!</i>	“I made a big mistake with my Japanese. I did not mean ‘stomachache,’ but I want to eat because it looks so tasty.”

In Sample Entry 2, SUA4 uses particle *o*, the object marker, erroneously with the verb *kotaeru* “answer,” but in the next message, he corrects himself, presumably having noticed his own error by reading SDWC4’s acknowledgement of his response where she repeats the same phrase but with the correct particle, *ni*. Similarly, in Sample Entry 3, SDWC5 suggests that the use of the onomatopoeia *gorogoro* does not sound right and asks whether SUA5 means otherwise, although she does not provide the alternative, correct form, *pekopeko*. In responding to the keypals’ implicit correction, students not only thanked them for pointing them out, but also either commented on it or incorporated the expression in their messages that the students recognized and understood well the error corrections given by their partners implicitly.

24 entries were found reporting students learning through negotiations in the form of Q&A's with their keypals (LS-III), and they were all concerned either with vocabulary (18 entries) or with expressions (6 entries). Sample Entry 4 illustrates a typical pattern of message exchanges where a Q&A would take place.

Sample Entry 4

Student	Japanese entry	English gloss
SUA6:	<i>boku no seikaku? eeto...., boku wa chotto shai to iijigouing (easy-going) – nihongo de nan to iimasuka? – da to omoimasu.</i>	“My personality?... Well, I think I am a bit shy and easy-going — how do you say (<i>easy-going</i>) in Japanese?”
SDWC6:	<i>SUA4-san wa shainandesuka? iijigouing wa nihongo de iuto “maipeesu”(my-pace) to iu imi desu.</i>	“Are you (SUA4) shy? Easy-going means ‘my-pace’ in Japanese.”

As with the cases of explicit error corrections, while most students acknowledged the responses and thanked their keypals, very few actually incorporated the newly learned vocabulary or expressions.

The most frequent entries in the students' learning logs reported learning from other types of input (LS-IV), which counted for 210 or 57% of the total 370 entries in the entire learning logs submitted by the UA students. All of these entries dealt with learning from being exposed to authentic input while reading keypals' messages, except one entry where the student reported trying out a new expression taught in the class. Most of this type of learning involved looking up an item, either a word, kanji, or a phrase, in a dictionary (69 cases reported), or guessing from the context (15 cases), but in 4 cases students reported getting help from other friends with the meaning or the usage. Three students also reported learning a new vocabulary while reading their group member's message or a message in another group.

Probably not surprisingly, most of the entries in this category dealt with vocabulary (158 entries or 75% of all the entries in LS-IV), expressions (21 entries or 10%), and kanji (18 entries or 9%). Unlike the other categories, no acknowledgement was made in most cases, though in a few cases, as shown in Sample Entry 5, students confirmed their understanding in their messages.

Sample Entry 5

Student	Japanese entry	English gloss
SDWC8:	<i>watashi mo kaimono daisuki desuyo. ima wa fukuyasan de baito shiteiru node sukoshi yasuku kaemasu ga...</i>	“I love shopping, too. I can buy [clothes] with some discount because I am <u>working part-time</u> at a dress shop, but...”
SUA8:	<i>arubaito wo mijikaku shite baito to iundesu ne. omoshiroi!</i>	“I see you can shorten <i>arubaito</i> (part-time job) as <i>baito</i> . Interesting!”
SDWC8:	<i>soodesu yo. kihontekini kaiwa no naka de wa arubaito no koto o baito to itteiru ndesu. kashikomatta ba de wa kichinto arubaito to iimasu ga.</i>	“That's right. We basically use <i>baito</i> (the shortened form) in a conversation, although we say <i>arubaito</i> properly in a formal situation.”

Although infrequently, there were 13 entries (6%) in which students reported learning grammatical expressions, such as the use of *ato* “after,” through the exchanged messages as shown in Sample Entry 6.

Sample Entry 6

Student	Japanese entry	English gloss
SUA9:	<i>sotsugyou shita toki ni, shuushoku shitai desu. watashi no arubaito de wa kyuuryou ga sukunai desu kara, sotsugyou no ato ni, hoka de hatarakitai desu.</i>	“I want to get a job when I graduate. Because my current part-time job does not pay me much, I want to work elsewhere <u>after graduation.</u> ”
SDWC9:	<i>SUA9-san wa daigaku o sotsugyoushita ato ni donna shigoto o shitai desu ka? soshite, daigaku o sotsugyou shita ato ni shuushoku shita kaisha de nannen kurai hatarakitai to omotte imasu ka?</i>	“What kind of job do you want <u>after you graduate?</u> And for how many years would you like to work at the company who hires you after you graduate?”
SUA9:	<i>sotsugyoushita ato ni honyakusha toka sensei ni naru to omoimasu.</i>	“I think I want to become a translator or a teacher <u>after I graduate.</u> ”

While the expression *sotsugyou no ato* “after graduation” as used by SUA9 in her first message is not grammatically incorrect, she uses an alternative, and more natural expression *sotsugyoushita ato*, with the verb *sotsugyousuru* “graduate” in the past tense form, in the next message, presumably after noticing that SDWC9 uses it twice in her response message.

In a few cases, however, students’ entries indicated that they incorrectly interpreted the input. SUA10 reported that he learned a “listing” expression using *sa*, which is actually a nominal suffix (*yasasi-i* “kind” vs. *yasasi-sa* “kindness”; *seijitsu-na* “loyal” vs. *seijitsu-sa* “loyalty”) and is not used for listing. The DWC student’s input corresponding to the SUA10’s entry is shown in Sample Entry 7.

Sample Entry 7

Student	Japanese entry	English gloss
SDWC10:	<i>moshi nihon no josei to kekkon suru to shitara, aite ni nani o motomemasu ka? rei: yasashi-sa, seijitsu-sa, nandemo iidesu.</i>	“If you marry Japanese girl, what do you request of her? Example: kindness, loyalty, anything is ok.”

Turning to the DWC students’ logs, summarized in Table 4, the total 62 entries included 13 entries that were also reported by UA students, and they were all categorized as items learned through explicit error corrections by a keypal (LS-I). The DWC students’ logs also contained 20 entries that they regarded as erroneous but did not provide any corrections: They were instructed to report what they “noticed” but not necessarily “corrected” of their keepals’ Japanese, as mentioned above. It should also be noted that since students were not required to report all the items they learned or noticed/corrected, it was not possible to match all these entries with those submitted by the UA students. Nonetheless, we checked each of the 42 entries for which DWC students provided corrections against the message texts, in order to determine whether the correction was made explicitly or implicitly and whether the UA student acknowledged them in their message by either overtly thanking them or by incorporating the correct form in their own messages. Twenty-eight entries dealt with cases where DWC students made explicit corrections, and 17 of them were acknowledged by UA students, including 13 cases that were also reported in UA students’ learning logs. Some of the examples of grammatical corrections are given below, with Sample Entry 8 dealing with error corrections of vocabulary choice (V); Sample Entry 9, grammatical corrections of particle use (G); and Sample Entry 10, verb conjugation (G).

Sample Entry 8

Student	Japanese entry	English gloss
SUA11:	<i>watashi mo jussai no toki ni amerika ni ryokou o shita. demo ima mou oboerarenai.</i>	“I also went to the U.S. when I was ten years old. But I cannot remember.”
SDWC11:	<i>demo ima mou oboerarenai wa demo ima wa mou <u>omoidasenai</u> ni suruto iiyo. oboeru to omoidasu wa eigo de wa dochiramo remember dakara muzukashii yo ne.</i>	“It is better to change <i>demo ima mou oboerarenai</i> to <i>demo ima wa mou <u>omoidasenai</u></i> . Both the verbs <i>oboeru</i> and <i>omoidasu</i> are “remember” in English, and therefore it is difficult (to distinguish).”
SUA11:	Thanks so much for correcting my Japanese.	

Sample Entry 9

Student	Japanese entry	English gloss
SUA12:	<i>kirei na josei <u>o</u> kekkon shitai desu.</i>	“I would like to marry a pretty lady.”
SDWC12:	<i>kirei na josei <u>to</u> kekkon shitai desu.</i>	“I would like to marry a pretty lady.”

Sample Entry 10

Student	Japanese entry	English gloss
SUA13:	<i>chuugokujin no tomodachi ga iruno? dokode baito o <u>shimasu</u> ka?</i>	“Do you have a Chinese friend? Where does she work part-time?”
SDWC13:	<i>ima wa itarian kafe de baito o <u>shiteimasu</u>.</i>	“She is right now working part-time at an Italian café.”

In Sample Entry 8, SDWC11 provides a metalinguistic explanation about the similarity of the two verbs *oboeru* “memorize” and *omoidasu* “recall,” which can be translated as “to remember” in English, and SUA11 acknowledges the correction by thanking her. In Sample Entry 9, SDWC12 points out, in an explicit correction, that the verb *kekconsuru* “marry” takes the commutative particle *to* “with,” instead of the accusative/object marker *o*, in Japanese. SUA12 later incorporated the correct use of *to* with the verb of *kekconsuru*. Sample Entry 10, on the other hand, illustrates a case where SUA13 uses a simple present tense form of *baito o shimasu* “work part-time,” when it should be in a present progressive form *baito o shiteimasu*, as corrected by SDWC13. Instead of presenting the correction in an explicit manner, however, SDWC13 uses the correct form in her answer to SUA13. No acknowledgement of the correction was found in the message texts.

The data indicated that explicitly corrected grammatical items were more often recognized and acknowledged: 18 of the 29 items (62%) dealing with explicit corrections in the DWC students’ logs were acknowledged or incorporated in the messages by the UA students, and they included 6 of the 12 entries (50%) dealing with grammar corrections. This was in proportion with the data from the UA students’ logs, which included 59 grammatical items among the 117 entries (50%) in the explicit correction (LS-I) category. In contrast, none of the 13 implicit corrections reported by the DWC students was acknowledged by UA students in the subsequent messages, and the UA students reported only 8 (42%) grammatical items among the 19 items in the implicit correction (LS-II) category. Although this does not

necessarily mean that UA students did not notice them, it seems that grammatical corrections are not recognized when presented implicitly as often as when they were presented explicitly.

One noticeable gap between the UA students' entries and those by DWC students concerns the proportion of the entries that dealt with particle uses. The DWC students reported 15 items of the total 27 grammatical errors (56%) as wrong uses of particles by the UA students, including 9 of the 17 entries (53%) where corrections were provided. On the other hand, only 20 entries or 30% of the total 67 grammatical items reported in the LS-I and II categories—and one single entry in the LS-II category—in the UA students' logs were concerned with particle uses. A closer examination of the DWC students' logs also revealed that only 3 out of the 9 corrected particle uses (33%) reported by the DWC students were acknowledged by the UA students. 3 out of 6 explicit corrections by the DWC students of particle uses were acknowledged by UA students, while none of the 3 implicit corrections led to either acknowledgement or incorporations of correct forms. Additionally, the DWC students' logs included 7 entries where they noticed particle errors in the UA students' Japanese but provided no corrections, possibly because a wrong use of particles may not necessarily interfere with the sentence meaning. The UA students may not be as sensitive to their particle uses as the DWC students are, and tend to miss the keypals' correction even if presented explicitly, and more so if presented implicitly. This is noteworthy because learners of Japanese often regard particle usage as the most difficult component in learning the language. It is suggested that certain grammatical items, such as particle uses, require explicit corrections, and possibly accompanying metalinguistic information.

DISCUSSION

The aim of the present study was to examine the patterns of students' language learning in a meaning-focused cross-cultural communication project. We were specifically interested in how learners of Japanese respond to the input they receive from their keypals. Based on the students' learning logs and message texts, we investigated (a) what kinds of linguistic items are learned through the keypal project, (b) whether students recognize and learn from their keypals' corrective input differently when they are presented either explicitly or implicitly, and (c) what kind of incidental learning may be taking place. Below, we will discuss the findings for each question in turn.

What Kinds of Linguistic Items are Learned through the Keypal Project?

Students have opportunities for language learning in all aspects, including vocabulary, kanji, grammar, and phrase/sentential expressions. Vocabulary items were the most frequent, although they were very rarely incorporated in their own messages, mainly because in discussing the inquiry topics their message content would not necessarily require the particular word. Grammatical expressions were the second most frequent over all, and the most frequent in the LS-I category, indicating that the keypal project facilitated error corrections even when students were engaged in meaning-focused e-mail exchanges. Kanji spelling and reading were least frequent, possibly because by using computers students have access to kanji characters that they might not recall or know otherwise.

Do Students Recognize and Learn from their Keypals' Corrective Input Differently when they are Presented Explicitly or Implicitly?

The UA students' logs yielded 117 entries for LS-1 (learning from overt corrections) compared to 19 for LS-II (noticing own errors without overt corrections), suggesting that non-explicit corrections may not lead to learning as often as explicit corrections. This finding was consistent with the results that none of the implicit corrections provided and reported by the DWC students were acknowledged or reported by the UA students, while 18 out of 29 explicit corrections provided and reported by the DWC students were acknowledged and/or reported by the UA students, indicating that the UA students often failed to recognize their keypals' corrections of their grammar, such as particle uses, when provided implicitly. However, the UA students' log data also indicated that, when noticed, implicit corrections and corrections

through negotiations seemed to lead to a better understanding of their own errors, as indicated by the fact that they were often incorporated in the response messages, a finding in resonance with the claim made by Gass (1988, 1999), who emphasizes the importance of students' recognition of their own errors and the process of negotiation. Moreover, while explicit corrections may be more easily noticed, some of the entries in this category suggested that the students may not have quite understood the grammatical corrections unless clear explanations were given. Such a gap might suggest that learners need a clearer indication of errors, possibly accompanied by a metalinguistic explanation, in order to fully take advantage of their keypals' corrections. While further research should pinpoint exactly what kind of input is effective for grammar learning, these findings underscore the significant role that 'noticed' input plays at the initial stage of learning, as argued by Gass (1988).

What Kind of Incidental Learning, if any, is Observed?

The keypal project provides ample opportunities for incidental learning, widely defined, either through explicit and implicit error corrections, or through exposure to authentic texts provided by their keypals. It is probably not surprising that vocabulary was reported most frequently as items learned without explicit corrections, either through negotiations or Q&A with keypals, or by reading keypals messages and looking words up in dictionaries. The results also suggested that while the project promotes explicit grammatical corrections between keypals, students do not pay much attention to grammatical features when reading keypals' messages, a finding that is consistent with Lee (2008), who reported the fewest self-repairs by students in a meaning-focus activity using CMC.

One of the factors underlying the infrequency of grammatical learning without corrective input might be the proficiency level of the learners. The Japanese level of the UA students may not have been high enough to learn grammatical items without explicit correction or clear explanation. Previous studies have indicated that incidental vocabulary learning can take place only after a certain amount of prior direct learning (R. Ellis, 1994; N.C. Ellis 1997; Huckin & Coady, 1999; Gass, 1988, 1999). For example, Huckin and Coady (1999) state:

For accurate guessing, L2 researchers seem to agree that a reader must know at least 98% of the words in the text, and for this the reader should have a sight-recognition vocabulary of about 5000 word families in English (p.184).

Considering that the UA students were in the first term of the third-year Japanese classes, many of them might not have been proficient enough to pay attention to and recognize grammatical items that were presented by their keypals. The DWC students, on the other hand, have studied English for more than 8 years—all Japanese students start studying English as a foreign language in secondary schools—and might not realize the differences in the level of their language learning. Having said that, we should emphasize that there were 21 entries where students reported grammatical learning in LS-II and LS-IV categories, indicating that certain types of grammatical features might be easier to notice, especially if students are at a high-enough proficiency level.

It should also be noted that the method of the data collection employed in the present study may have directed students' learning towards greater intentionality. That is, while the focus of the students' task during the keypal project was on meaning, given the instruction to keep language logs, they may have paid more attention to linguistic issues than otherwise. As Hulstijn (2003) maintains, incidental and intentional learning form a continuum in the dimension of attention and noticing, and a future project should explore a different type of data to be analyzed. Additionally, in the present study only the DWC students, but not UA students, were asked to keep logs about their keypals' (erroneous) language use, and it is possible that the level of awareness about linguistic issues may have been different had both groups of students been given the same requirements.

CONCLUSION

While this study did not directly examine the learners' 'intake' of the linguistic input through the communication project, the results indicate that learners are in fact provided with an ideal environment for incidental learning while being engaged in meaning-focused communication. Probably because of the learning logs, the project facilitated explicit corrections of grammatical items, vocabulary usage, and phrasal and sentential expressions. Students also reported frequent vocabulary learning through reading their keypals' messages, although grammatical items seem to be less recognized without explicit correction, possibly due to the low proficiency level of the UA students, as well as the DWC students' difficulty in realizing the UA students' Japanese level.

A better understanding of the proficiency levels of each other's second language, and a better incorporation of clear error corrections possibly accompanied by metalinguistic explanations, might help further promote incidental grammatical as well as vocabulary learning through this kind of communication project. Moreover, since the UA-DWC project has been incorporated into the third-year Japanese language classes at UA, a future study may utilize a project with participants who are at higher proficiency level, examining how learners' proficiency level may influence incidental grammatical learning. The observed effects of the project on students' incidental learning should be evaluated as well through an objective assessment of students' language gain, by comparing their pre- and post- essays, for example.

Obviously, not all feedback is noticed, and not all *noticed* gaps lead to learning, since language learning takes place over a long time. However, communication projects like ours are very important because they provide opportunities for learners to receive ample peer feedback and authentic input, and to thus not only raise language awareness but also serve as a motivation for language learning.

APPENDIX. Template for UA Students' Learning Logs

JAPAN301	FALL 2006
KEYPAL PROJECT LANGUAGE LEARNING LOG	
Name:	Date of the message:
Group #	Log # / 4
<p>(1) Please list the item(s) you learned from the keypal's message.</p> <p>(2) For each item, please also indicate how you learned it by choosing one of the following:</p> <p style="margin-left: 20px;">(a) My keypal corrected my error in the previous message.</p> <p style="margin-left: 20px;">(b) My keypal did not correct me but I realized I was wrong.</p> <p style="margin-left: 20px;">(c) I asked my keypal how to say it.</p> <p style="margin-left: 20px;">(d) Other: please describe briefly.</p> <p>(3) Send this log to the instructor by using the assignment submission function on WebCT.</p>	
(1) WHAT	(2) HOW: choose from (a) to (d)
Add more lines if necessary.	

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REFERENCES

- Edasawa, Y., & Kabata, K. (2007). An ethnographic study of a key-pal project: Learning a foreign language through bilingual communication. *Computer Assisted Language Learning*, 20(3), 189–207.
- Ellis, N. C. (1997). Vocabulary acquisition: word structure, collocation, word-class, and meaning. In N. Schmitt & M. McCarthy (Eds.), *Vocabulary: Description, acquisition and pedagogy* (pp. 122–139). Cambridge: Cambridge University Press.
- Ellis, R. (1994). *The study of second language acquisition*. Oxford: Oxford University Press.
- Gass, S. (1988). Integrating research areas: A framework for second language studies. *Applied Linguistics*, 9(2), 198–216.
- Gass, S. (1999). Discussion: Incidental vocabulary acquisition. *Studies in Second Language Acquisition*, 21, 319–333.
- Greenfield, R. (2003). Collaborative e-mail exchange for teaching secondary ESL: A case study in Hong Kong. *Language Learning & Technology*, 7(1), 46–70. Retrieved from <http://llt.msu.edu/vol7num1/greenfield/default.html>
- Huckin, T., & Coady, J. (1999). Incidental vocabulary acquisition in a second language: A review. *Studies in Second Language Acquisition*, 21, 181–193.
- Hulstijn, J. H. (2003). Incidental and intentional learning. In C. J. Doughty & M. H. Long (Eds.), *The handbook of second language acquisition* (pp. 349–381). London: Blackwell.
- Itakura, H. (2004). Changing cultural stereotypes through e-mail assisted foreign language learning. *System*, 32, 37–51.
- Jogan, K. M., Heredia, A. H., & Aguilera, G. M. (2001). Cross-cultural e-mail: Providing cultural input for the advanced foreign language student. *Foreign Language Annals*, 34(4), 341–346.

- Lee, L. (2008). Focus-on-form through collaborative scaffolding in expert-to-novice online interaction. *Language Learning & Technology*, 12(3), 53–72. Retrieved from <http://lt.msu.edu/vol12num3/lee.pdf>
- Little, D., & Brammerts, H. (1996). *A guide to language learning in tandem via the Internet*. Dublin: Trinity College, Centre for Language and Communication Studies.
- Little, D., Ushioda, E., Appel, M. C., Moran, J., O'Rourke, B., & Schwienhorst, K. (1999). *Evaluating tandem language learning by e-mail: Report on a bilateral project*. Dublin: Trinity College, Centre for Language and Communication Studies.
- Loewen, S. (2005). Incidental focus on form and second language learning. *Studies in Second Language Acquisition*, 27, 361–186.
- Schmitt, N. (2000). *Vocabulary in language teaching*. Cambridge: Cambridge University Press.
- Torii-Williams, E. (2004). Incorporating the use of e-mail into a language program. *Computer Assisted Language Learning*, 17(1), 109–122.
- Toyoda, E., & Harrison, R. (2002). Categorization of text chat communication between learners and native speakers of Japanese. *Language Learning & Technology*, 6(1), 82–99. Retrieved from <http://lt.msu.edu/vol6num1/pdf/toyoda.pdf>
- Van Handle, D. C., & Corl, K. A. (1998). Extending the dialogue: Using electronic mail and the internet to promote conversation and writing in intermediate level German language courses. *CALICO Journal*, 15(3), 129–143.
- Vinagre, M. (2005). Fostering language learning via email: An English-Spanish exchange. *Computer Assisted Language Learning*, 18(5), 369–388.