

Connecting CALL and second language development: e-tandem learning of Japanese

Satomi Kawaguchi
University of Western Sydney

1. Introduction

More than 20 years have passed since Computer Assisted Language Learning (CALL) was introduced into L2 classrooms. The advantages of CALL in SLA are well documented (e.g., Thorne 2008). In particular, recent advancements in multimedia technology allow for ever more authentic communication exchanges in L2 interaction. Text message exchange known as chat offers great opportunities for the language learner to interact with a native speaker of a language instantly regardless of their physical distance. Among CALL activities, chat is one of the most researched areas (e.g., Donaldson & Kotter 1999; Schwienhorst 2002; Toyoda & Harrison 2002; Iwasaki & Oliver 2003; Kotter 2003; O'Rourke 2005). Most studies in the area of chat are conducted within an interactionist approach. The Interaction Hypothesis (Long 1996) claims that interaction plays an important role in L2 acquisition, which is promoted through negotiation of meaning such as clarification requests and confirmation checks. In L2 learning, language input (Krashen 1985; Long 1996) and learner output (Swain 1985, 1995) play crucial roles. CALL can enhance both. In particular, online chat creates authentic contexts for interaction where the language learner has opportunities to receive meaningful input and output. Furthermore, negotiation of meaning and feedback on his/her output from the native speaker may promote 'noticing' the gap (Schmidt & Frota 1986) between the current state of the interlanguage and the target language.

The type of CALL activity chosen in this chapter is electronic tandem (e-tandem for short, Cziko 2004), an activity in which participants engage in tele-collaboration (Ware & Cañado 2007) via text-based Synchronous Computer Mediated Communication (SCMC). In L2 e-tandem learning, a group of L2 students engages in a learning interaction with another group of students who are native speakers of that language. These, in turn, are also learners of a second language, which is the native language of the first group. So, each group is, alter-

natively, learning from, or teaching the other group (cf. Lewis & Walker 2003 for detailed explanations of tandem language learning). In recent years, research on e-tandem has grown in the field of SLA. Studies on e-tandem learning show how learners can use negotiation opportunities qualitatively and quantitatively when communication problems occur (Iwasaki & Oliver 2003; Sotillo 2005; Lee 2006; Ware & O'Dowd 2008; Bower & Kawaguchi 2011). Other CALL-related studies deal with technological design, students' evaluation or perception and cultural issues. So far few studies on e-tandem have examined the effectiveness of CALL activities on L2 development (e.g., Bower & Kawaguchi 2011; Iwasaki & Oliver 2003). For learners, teachers and researchers it is important to be aware of language development when experimenting and practicing CALL in order to make it more meaningful.

This chapter presents an early attempt to link CALL and PT. I will use as an example e-tandem learning via chat between learners of Japanese L2 in Australia and learners of English L2 in Japan, with the focus on Japanese L2. I will analyse chat logs according to PT's developmental stages, and measure the learners' L2 production as the text chatting activities progress over a two-month period. Furthermore, I will attempt to link CALL to my main research line in this field, which aims at extending the application of PT's Steadiness Hypothesis across learning modalities, and test whether the production of text chat language conforms to the PT schedules formulated for orality. The Steadiness Hypothesis was originally proposed by Pienemann (1998: 273–297) when he convincingly showed that acquisitional sequences are not affected by different communicative tasks. So far only Håkansson & Norrby (2007) and Rahkonen & Håkansson (2008) have investigated steadiness in a modality other than speech, namely writing. Rahkonen & Håkansson's (2008) cross-sectional study on L2 Swedish writing looks at formal and semiformal writing. Their results show that acquisition patterns in the two types of writing present both similarities to, and differences from PT sequence for speech. That is, using the old PT terminology of these two researchers, the sequence in speech is 'tense < VP agr < INV'; in the semiformal writing corpus 'tense = VP agr < INV'; and in the formal writing corpus 'tense = VP agr = INV'. Thus, acquisitional patterns may differ significantly according to whether corpora include semiformal writing closer to speech or formal writing. So far, no study has been undertaken on SCMC within the framework of PT. It is interesting to examine whether the L2 text production via SCMC shows a close relationship with PT stages in speech, since it occurs in real-time interaction and is thus closer to online speech production than either formal or semiformal writing.

In order to bridge the gap in research the following research questions are addressed in this chapter:

- Do tandem learning activities conducted through chat promote L2 production? More specifically, does the number of word types produced by L2 speakers increase during e-tandem learning activities?
- Does online production in text messaging (written production) show development as measured by PT developmental stages?
- Is development across modalities steady in terms of the trajectory of morphological and syntactic structures defined by PT's Steadiness Hypothesis for oral production?

2. Synchronous CMC and SLA research

Communication technology enables us to interact with others in various ways. For example, e-mail exchange is an asynchronous way of Computer-Mediated Communication (CMC), whereas text chat is synchronous, the “most interactive end of the CMC spectrum” (Paramskas 1999: 17). As such, online text messaging shares many characteristics with face-to-face conversation. Participants have far less time to edit a message than in other types of CMC such as composition in blog or e-mail (Levy & Stockwell 2006). Because of real time interaction, they can negotiate meaning in a way similar to face-to-face conversation (Blake 2000; Toyoda & Harrison 2002; Iwasaki & Oliver 2003). Furthermore, the text-based medium can lead learners to noticing more problematic L2 language than face-to-face communication (Lai & Zhao 2006), and may increase students' attention to linguistic form (Warschauer 1996).

Payne & Whitney (2002) claim that, in L2 learning, chat may achieve better outcomes than face-to-face activities because the L2 learner benefits from slower language processing while at the same time having to process utterances largely ‘on the fly’, that is, with little or no advance planning, as is the case of face-to-face verbal communication. These authors demonstrate that a group of learners with blended activities (both face-to-face and SCMC) improve their oral proficiency better than an equivalent group with face-to-face learning only, when measured by Oral Production Interview ratings on comprehensibility, fluency, vocabulary use, grammar, and pronunciation.

Payne & Whitney (2002) also show that SCMC can develop the same cognitive mechanisms underlying spontaneous oral communication, and thus facilitate the acquisition of L2 speaking skills. Part of their claim is based on Levelt's (1989) Speech Model (cf. § 2.1, ch. 1, this volume) in relation to the role of working memory for language processing. Working memory has a limited capacity, and can thus attend only to a limited amount of information immediately in real-time. There is a trade-off between its information processing role and its storage role in order to cope with the incremental nature of language production/comprehension

(Kahnemann 1973; Carpenter & Just 1989). This means that if a speaker processes information more efficiently, more working memory space becomes available to devote to other components of language processing and storing. Beginning L2 learners need to place attentional resources on various steps of language processing. For example, they need to search for appropriate words from their mental lexicon and place them within an appropriate syntactic frame with appropriate functional assignment. Furthermore, they need to determine the correct morphosyntactic forms and select corresponding phonological units. If these processes are not automatic, a burden is placed on the phonological processing (Baddeley 2007). In L1, lexical access and articulation are largely automatic, and the speaker needs to pay attention only to conceptualization and careful delivery. On the other hand, at the earlier stages of L2 learning, most processing components are controlled, resulting in speech with longer and more frequent pauses, etc. (Poulisse 1999). PT also uses Levelt's (1989) Model and claims that L2 acquisition is constrained by the learner's current state of procedural skills. As particular procedural skill components are automatised, more attentional resources become available to the L2 speaker, who can thus achieve further language processing, such as more fluent speech or/and construction of higher stage-structures.

What may then be the advantages of using text chat communication in SLA? First, the speed of information exchange is a little slower than in speaking simply because one cannot write as fast as one speaks. This gives L2 learners opportunities to process L2 messages at a slower pace while going through a similar language processing as in face-to-face communication. Secondly, the availability of previous messages (the visual co-text) can help learners to reduce the amount of information to be stored in working memory. Therefore, they can free up more attentional resources for the L2 lexicon and structures while maintaining pace in interaction. Thus learners may gain greater benefit from slower language processing while going through similar processing as may occur in face-to-face communication involving conceptualization, formulation, articulation (typing) as well as comprehension of the interlocutor's utterance. Thirdly, Payne & Whitney (2002) believe that chat communication may provide opportunities for learners to experience a sort of "conversation simulator" which may be effective especially for less confident, shyer or linguistically weaker students, who tend not to take full advantage of interaction with teacher or fellow students in face-to-face settings. Furthermore, the text-based medium may increase students' attention to linguistic form (Warschauer 1996) due to the slower information exchange.

Chat logs obtained from a tandem project can therefore offer an interesting opportunity to investigate whether L2 development follows PT stages also in this communication mode. In order to measure learners' oral proficiency, Payne & Whitney (2002) use Oral Production Interview rating on comprehensibility, flu-

ency, vocabulary usage, syntax, and pronunciation with two examiners rating on a 50 point scale. Although interrater reliability was high (0.86 for the pre-test and 0.94 for the post-test), it might be fruitful to assess L2 development using a more objective measurement such as the PT stages.

3. The e-tandem project

This section describes a tandem learning project¹ using chat via instant messaging between language classes at the University of Western Sydney in Australia and at the Kanda University of International Study in Japan. This project was organised as an out-of-class L2 activity at each institution aiming at collaborative learning in a more authentic context.

The participants are 21 second-year students of L2 Japanese in Australia, and 21 first-year students of L2 English in Japan.² The two groups are compatible, albeit not perfectly matched in several ways. First, the levels of L2 English in Japan are generally higher than those of L2 Japanese in Australia, because Japanese students learn English for six years at secondary school as a compulsory subject before starting university, whereas most Australian students start learning Japanese at university. Secondly, all students of English in Japan are native speakers of Japanese, whereas the students of Japanese in Australia are a mixed group, reflecting the multicultural nature of Australian society. So, according to the answers to a questionnaire enquiring about their background, 10 students are foreigners, four identified themselves as immigrants of ethnic background, and the rest as Australians. In order to enhance compatibility, when the project started all learners wrote a short self-introduction so that their teachers could match the tandem pairs according to mutual interests.

The project includes three chat sessions, distributed over two months, each lasting at least 30 minutes in each of the two languages. The first session was conducted during class time to ensure that everything worked; the second and third sessions were then organized by tandem pairs autonomously.

Before each chat session, students were given a broad conversation topic. For session 1 this was more oriented towards the here-and-now, and dedicated to self-

1 This study was supported by the University of Western Sydney, LTAP (Learning & Teaching Action Plan).

2 Two second-year students at Kanda University of International Study and four third-year students at University of Western Sydney also volunteered on several occasions in order to replace students who were unable to attend, and thus match the number of participants.

introduction and one's family, then it gradually moved on to more challenging areas: session 2 was about university life, and session 3 about each other's culture and related controversial issues. Participants were required to do the following:

- organise the date and the time of the two subsequent sessions via e-mail, and agree on the topics for conversation;
- check and study vocabulary which may be useful for conversing on the agreed topics;
- log in and participate in the chat at the designated time, and converse on the chosen topics half the time in English and half in Japanese at each session;
- submit to their teachers their observations and chat logs after each session;
- study the tandem partners' L2 production in the chat log, and send them some corrections and suggestions via e-mail after each chat.

In § 4 below I will report on the analysis of L2 Japanese data only. Because not all participants attended all chat sessions, some students had a three-way chat or different partners across sessions. I thus selected five learners of Japanese who participated in all three sessions with the same tandem partner.

As mentioned above, the e-tandem sessions were an out-of-class activity organised over two months as part of the Japanese L2 course. In the face-to-face classroom, new lexicon and the following grammatical structures were introduced weekly during this period:

- potential forms of the verb;
- conditional clause;
- various interrogative sentences (asking about subject/object/adjunct);
- auxiliary verbs;
- plain forms of adjective, copula and verb;
- sentential modification for noun.

Also, learners might have learned new words and structures from their partners during the sessions. However, learning a new structure as knowledge is different from using it in time-constrained conditions. In order to produce the structure online, processing efficiency needs to be attained. In my analysis here, although development will be measured as the three sessions progress, the main focus is on language use rather than acquisition. Indeed, the e-tandem project is not designed to test the learner's acquisition of particular morphological structure (e.g., verbal inflections) and syntactic structure (e.g., passive voice) in order to identify his/her PT stages. Instead, what is clearly seen from the chat log is each L2 learner's language use (such as selection of lexicon and syntactic structures) in real time interaction.

In order to exemplify some of the characteristics of text chat such as the pattern of turn taking, an excerpt from session 3 by Lee and his Japanese partner Mayumi is reproduced in the Appendix. Text chat and face-to-face conversation share many similarities including negotiation of meaning, such as the confirmation checks in turn 2 and 3, and the clarification requests in turns 17-18. Also, since the conversation is between a learner of Japanese and a native speaker, code-switching can occur (e.g., turns 2 and 5). On the other hand, there are some differences between this modality and face-to-face conversations. For example, the pattern of turn taking is different. In chat, turns are counted whenever a typist posts the text message by pressing the “enter” key. Thus, unlike in face-to-face conversation, participants may have different turn-taking opportunities, because a fast typist may post another text message (e.g., turns 7, 9 and 16) before his/her partner responds to the previous one, which may result in uneven distribution of turns across interactants. Sometimes a typist may accidentally post a turn before he/she finishes a sentence and continues in the next turn (e.g., turns 25-26). Conversational sequence can be interrupted by some unexpected turns (e.g., turn 20) due to the delay/gap between the time of posting a message and the time of receiving the response. Furthermore, sometimes a participant may move on to a new topic before a negotiation is resolved (e.g., turn 20).

4. Language Development

4.1. Chat production

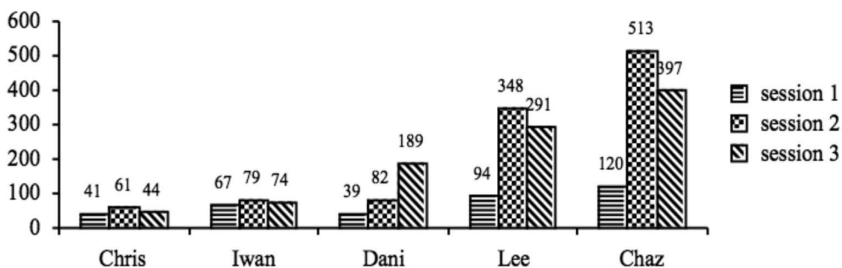
The numbers of turns produced in each chat session by our five learners are shown in (1). In the table “total” indicates the turns produced by both interlocutors, namely the native speakers of Japanese (NSs) and the L2 learner (NNSs); “NNS” indicates the turns produced by the L2 learner only; and the numbers in brackets indicate the turns produced in English.³ So, for example, Chaz’s session 2 comprises 109 turns, with Chaz himself posting 66 of them, three of which are written in English. Looking at all five learners, we can see that the text messaging activity seems successful, in so far as the number of turns sent in L2 Japanese increases for all of them after the first break-in session, although more so in session 2 than in session 3.

3 Codeswitches were encouraged by the topic, especially in session 3, when controversial issues in each other’s culture were discussed. For example, two pairs talked about “whaling” in Japanese. One of these pairs sometimes used English words/sentences when communication problems occurred.

(1) *Number of turns by learner and session*

	CHRIS		IWAN		DANI		LEE		CHAZ	
	Tot.	NNS	Tot.	NNS	Tot.	NNS	Tot.	NNS	Tot.	NNS
SESS. 1	24 (0)	13 (0)	25 (0)	15 (0)	18 (1)	10 (0)	54 (0)	26 (0)	26 (0)	16 (0)
SESS. 2	32 (3)	15 (1)	51 (2)	24 (2)	25 (0)	14 (0)	188 (9)	100 (9)	104 (5)	63 (3)
SESS. 3	17 (0)	9 (0)	59 (10)	29 (5)	31 (0)	17 (0)	152 (3)	70 (2)	89 (2)	47 (1)
TOTAL	73 (3)	37 (1)	135 (12)	68 (7)	74 (1)	41 (0)	394 (12)	196 (11)	219 (7)	126 (4)

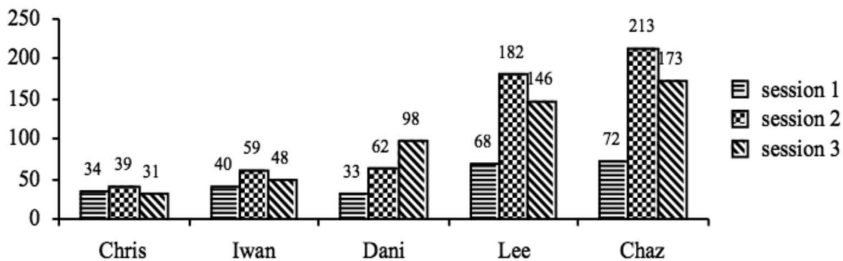
Because a turn may consist of one word or a few sentences, a more precise measure of the amount of language used is the word count in terms of tokens, as shown in the graph in (2). Here we can see that all five learners increase their tokens from session 1 to session 2, but then four out of five decrease them in session 3, as they do with their turns. Dani is the only learner who increases the number of both turns and words in the third session. The reason for smaller production in this session can be found in the topic of the conversation: whereas the topic for session 2 is “university life” and could be handled more descriptively, the topic for session 3 engages the learners on controversial issues relating to each other’s culture. Its argumentative nature may have slowed down the conversation quantitatively as learners would have required more time for conceptualising the message. In the graph we also notice that, if the curve seems similar across all learners except Dani, there is great variation among them in the number of actual tokens produced. So, in session 2, for example, Chris posts 61 word tokens and Chaz 513.

(2) *Number of words (tokens) by learner and session*

4.2. The lexicon

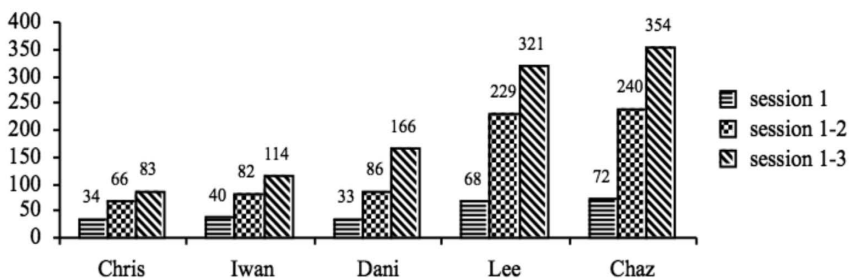
Using the Key Word In Context concordance programme (KWIC, created by Nihon University and available online), I calculated the size of the lexicon used during the chat sessions in terms of types (i.e., different words). This is illustrated in the two graphs in (3)-(4). The graph in (3) shows number of types used by each learner in each session. Considering the results of the token analysis in the graph in (2), it is not surprising to see that as the tokens vary, so do the types; that is, numbers for types increase for all students between session 1 and 2, but keep increasing only for Dani between sessions 2 and 3.

(3) Number of words (types) by learner and session



Because the topic of conversation changed in each chat session, and learners were required to study vocabulary relating to the agreed conversational topics prior to the chat session, we expected learners to produce some different lexical items every time. In order to measure this, the graph in (4) shows the cumulative number of word types without including those already used in the previous session; that is, for each learner, the types of session 1 are added to those of session 2, minus those already used in session 1; and the types of sessions 1 and 2 are added up to those

(4) Cumulative number of word types by learner and session



of session 3, minus those already used in sessions 1 and 2. Thus the figures in this graph indicate the actual size of the lexicon used over the three sessions, and show that the number of types steadily increased at every session for all learners. Comparing learners, however, we can see great variation among them, as we have already noticed with regards to their word tokens. For example, the figure for Chris in all three sessions is 83, for Dani 166, and for Chaz 354.

4.3. Morphology and syntax

The grammatical development of the five learners from session 1 to session 3 is illustrated in (5). For the description of PT stages for Japanese L2 morphology and syntax, I refer to chapter 4, §§ 2-3, this volume. However, as a matter of convenience, the first stage of lemma access is omitted here, because all learners already safely reached it. In the analysis, as mentioned in chapter 1, § 5, this volume, lexical or formal variation is used as the acquisition criterion for morphology, whereas for syntax one occurrence of the relevant structure is considered sufficient.

(5) The learners' progress over the three chat sessions

STAGES	STRUCTURES	CHRIS			IWAN			DANI			LEE			CHAZ		
		SESSIONS 1 2 3	SESSIONS 1 2 3	SESSIONS 1 2 3	SESSIONS 1 2 3	SESSIONS 1 2 3	SESSIONS 1 2 3	SESSIONS 1 2 3	SESSIONS 1 2 3	SESSIONS 1 2 3	SESSIONS 1 2 3	SESSIONS 1 2 3				
M O R P H O L O G Y																
S-PROCEDURE	noncan. case marking							(1)	1			-2		(1)		
PHRASAL PROCED.	V-te V							2	3	1	19	20	4	15	2	
CATEGORY PROCED.	V inflection	2	4	2	3	2	3	2	10	11	23	22	11	4	26	27
S Y N T A X - P R O M I N E N C E H Y P O T H E S I S																
NONCANON. ORDER	TOP _{OBJ} SV										1	4	1		3	2
XP CANON. ORDER	TOP _{ADJ} SOV		2	1	2	-1	2			3	1	11	8		3	1
CANON. ORDER	SOV	1	5	1	1	1	1	2	8	10	5	18	8	9	16	9
S Y N T A X - L E X I C A L M A P P I N G H Y P O T H E S I S																
NONDEF. MAPPING	passives/benef.									1	1					1
DEFAULT MAPPING & ADDI. ARG.	ag./exp. on SUBJ, pat./th. on OBJ, & goal/ben. on OBL		4	1		1	2		2	3	3	5	3	4	6	6
DEFAULT MAPPING	ag./exp. on SUBJ and pat./th. on OBJ	1	5	1	1	1	1	2	8	10	3	14-1	14	9	16	9

As (5) shows, Chris's numbers for both morphological and syntactic structures are small, because most of his turns are single words or fragments of phrases. However, he shows some progress during the three sessions. Morphologically, he stays at the category procedure stage in all three sessions, but he produces a variety of forms: polite (affirmative), negative and question forms in session 1, then adding the plain form in sessions 2 and 3. Syntactically, he moves one stage up with both word order and lexical mapping in session 2, then proceeds no further.

Also Iwan produces few sentences in the three sessions as he often uses fixed expressions. In terms of morphology, he produces only structures requiring category procedure (i.e., V inflection) in all three sessions. In terms of syntax involving word order, he is at the XP canonical word order stage at session 1 and does not progress further by session 3. In terms of syntax involving mapping, he is at the default mapping stage at session 1, and progresses to default mapping and to the additional argument stage at session 2. We can conclude that his progress is limited.

Dani's progress, on the other hand, is remarkable in several ways. Although, like Chris, he starts off in session 1 with only low numbers for the earliest stage in both morphology and syntax, he then moves up two stages in both the morphological and the lexical mapping schedules. Furthermore, morphologically both the numbers and range of structures increase substantially in sessions 2 and 3. That is, he produces 2 V inflections (one negative and the other desiderative) in session 1, which belong to the category procedure stage. Then he adds more V inflections, including past tense and plain forms, as well as *V-te V* structure expressing progressive aspect in session 2, which belongs to the phrasal procedure stage. He also produces noncanonical case marking once in sessions 2 and 3. Finally, although only one token of noncanonical case marking belonging to the S-procedure stage is produced, it can be assumed that he has acquired it by session 3 because he has already produced this structure with different lexical items in session 2. In terms of syntax, dramatic achievement is observed. Despite producing only sentences with canonical word order and default mapping in session 1, Dani constructs sentences with benefactive and passive V's in sessions 2 and 3.⁴ He also produces XP plus canonical order in session 3. In addition, in each of the last two sessions he actively uses further new structures learned in class: conditional clause in session 2, and sentential noun modification in session 3. Compared to Chris, Dani then progresses enormous-

4 Dani's production of passive sentence is as follows: 日本で 何頭クジラが 毎年 殺されるか (Nihon-de nantoo kujira-ga maitoshi korosareru ka) "In Japan how many whales are killed every year?"

ly over the two months, shooting ahead by two stages both morphologically and syntactically, and using twice the number of lexical types. He is also the only learner who never codeswitches to English.

Lee is at the category procedure stage in morphology in session 1 as he produces V inflection 23 times. In this session, he also uses one *V-te V* structure, which however is insufficient to place him at the phrasal procedure stage yet. In session 2, remarkably, he produces the *V-te V* and other combinatorial structures 19 times, and thus safely reaches the phrasal procedure stage. In session 3, he produces morphological structures requiring the category procedure 11 times and the phrasal procedure 20 times, and attempts noncanonical case marking (i.e., S-procedure) twice, but both these cases turn out to be wrong. Thus Lee's morphological progression is from the category procedure stage in session 1 to the phrasal procedure stage in sessions 2 and 3. As for syntax, in session 1 Lee is already at the noncanonical word order stage when, besides structures of the lower stages, he also produces one TOP_{OBJ} SV structure. In sessions 2 and 3 this rule is consolidated. In terms of lexical mapping, he is at the intermediate stage of default mapping and additional argument in session 1, and remains there in sessions 2 and 3.

Chaz also improves over the sessions. In session 1 he starts off with robust figures for both morphology at the phrasal procedure stage and syntax at the intermediate lexical mapping stage, and he is the learner who progresses furthest in syntax in the subsequent two sessions. In morphology he then seems to reach the S-procedure stage with just one tentative production of noncanonical case marking in session 2, shown in brackets in (5). In syntax, on the other hand, he comfortably reaches the noncanonical word order stage by producing several OBJ topicalisations. Furthermore, he produces one benefactive structure in session 2.

In sum, the analysis of grammatical development over the three sessions indicates that the answers to my research questions formulated in § 1 are all positive. The first question asks whether the cumulative number of words produced by L2 speakers increases during e-tandem. As the sessions progress, all learners' use more language, in terms of both turn numbers and word tokens. Also word types increase dramatically, although with significant individual differences (almost 1:4.5). The same tendency is apparent in the development of morphology and syntax. Two learners (Dani and Lee) out of five progress to new morphological stages. With regard to syntax, three learners progress on word order (Chris, Dani and Chaz), and four extend their mapping (the exception is Lee).

The second question asks whether developmental sequences in text chat follow the trajectory defined by PT for oral production. They certainly do, as these results demonstrate, with no learner skipping stages. As for the third question, whether PT stages hold across modalities, the answer is positive and detailed results also show that chat may produce results closer to speech than formal and informal writing. Thus, e-tandem chat is shown to be an effective, guided L2 learning activ-

ity which can increase L2 production. With regard to the large individual differences in students' learning outcomes, at this stage we cannot say whether they are due to a different response to this set of activities.

5. Conclusion

CALL is now a natural part of L2 learning (Chambers & Bax 2006). This requires new roles for the language teacher, who must no longer just teach “knowledge” of the L2 in the classroom, but also design an L2 learning environment which promotes and supports meaningful L2 activities (Thomson 2007). CALL can offer these activities for out-of-class practice, thus offering new opportunities to achieve better L2 outcomes. However, there may be a pitfall with CALL if SLA theories are not taken into account. For example, CALL activities may seem to suite learners' current needs and lifestyles, but they run the risk of being just an enjoyable experience and produce little L2 progress if teachers do not monitor the L2 learners progress using a reliable measurement such as PT stages.

This chapter shows that PT has a positive potential to contribute to the field and is capable to connect CALL and SLA. Further, the Steadiness Hypothesis is confirmed not only across tasks but also across modalities. This suggests a great potential for an online extended version of PT's Rapid Profile (cf., e.g., Pienemann & Mackey 1993; Kefler 2007; Pienemann & Kefler 2010) in monitoring L2 grammatical development with CALL (especially text messaging) by teachers or learners themselves.

Appendix

A chat log excerpt from session 3 with Lee (L, learner) and Mayumi (M, native speaker)

TURN	CHAT LOG [ROMANISED TRANSLITERATION]	ENGLISH TRANSLATION
1 L	オーストラリアの海でくじらをころすことはいほうです くじらを殺すことは違法です [Oosutoraria-no umi-de kugira-o korosu koto-wa ihoo desu kujira-o korosu koto-wa ihoo desu]	It is illegal to kill whales in Australian waters. It is illegal to kill whales.
2 M	かいいき=a sea area をまもれってこと? [kaiiki=a sea area o mamorette koto?]	Do you mean we [should] abide by a sea area?
3 M	そうなのですか? [soo nano desu ka?]	Is that so?
4 L	そう [soo]	Yes.

5	L	international waters, japanese waters etc	International waters, Japanese waters, etc.
6	M	たぶん 日本のかじらをとってるひとは そのことを知りません [tabun nihon-no kujira-o totteru hito-wa sono koto-o shirimasen]	Maybe those who are catching whales don't know about it.
7	M	オーストラリアではくじらのにくを たべないのですか？ [Oosutoraria-dewa kujira-no niku-o tabenaino desu ka?]	Don't you eat whale in Australia?
8	L	問題は日本とノルウェーしかたべないよ [Mondai-wa nihon-go noruwee-shika tabenai yo]	The problem is that no one but Japanese and Norwegian eats [whale].
9	L	アメリカとかオーストラリアはほげいをやめてほし [Amerika toka Oosutoraria-wa hogee-o yamete hoshi]	America and Australia want to stop whaling.
10	M	でも 日本でもすーぱーとかで くじらのにくを うってるの みたことないよ [Demo nihon-demo suupaa toka-de kujira-no niku-o utteruno mitakoto nai yo]	But I have never seen whale meat on sale at the supermarket in Japan.
11	L	けど日本人はくじらのにくをまだたべたい [Kedo nihonjin-wa kujira-no niku-o mada tabetai]	But Japanese still want to eat whale.
12	M	むかし せかいで ほげいがきんしされたよね [mukashi sekai-de hogee-ga kinshi sareta yo ne]	Long time ago, whaling was banned in the world.
13	L	その時オーストラリアもほげいしたよ [sono toki Oosutoraria-mo hogee shita yo]	At that time, Australia was also practicing whaling.
14	M	くじらにくの せんもんてんみたいのはすこしあるよ [kujira niku-no senmonten mitai no-wa sukoshi aru yo]	There are small numbers of shops specialized for [selling] whale.
15	L	けどにくたべてない けどにくはたべてない [kedo niku tabete nai kedo niku-wa tabete nai]	But we didn't eat meat, but didn't eat meat.
16	L	くじらのあぶらをつかいました [kujira-no abura-o tsukaimashita]	We used whale oil.
17	M	ほげいして どうしたの？ がいこくに うったの？ [hogee shite doo shita no? Gaikoku-ni utta no??]	So what did you do after catching whale? Did you sell it to foreign countries?
18	M	なんのために あぶらをつかったの？ [nan-no tame-ni abura-o tsukatta no?]	What did you use [whale] oil for?
19	L	あぶらのlamp [abura-no lamp]	Oil lamp.
20	M	いまほげいしているくにが すくないから、くじらが ふえすぎているってきいたよ [ima hogee shite iru kuni-ga sukunai kara kujira-ga fuesugite irutte kiita yo]	I heard that the number of whales is increasing excessively because there aren't many countries which practice whaling.
21	M	あああぶらのランプね [aa abura-no ranpu ne]	Uh oil lamp.

22	L	そうよ [soo yo]	That's right.
23	M	なんでほげいをやめてほしいの？ [nan-de hogee-o yamete hoshii no?]	Why do you want to stop whaling?
24	M	くじらがすきななの？ [Kujira-ga sukina no?]	Do you like whales?
25	L	だから私の意見は一年で日本じん [dakara watashi no iken-wa ichinen-de nihonjin]	So my opinion is in one year Japanese
26	L	は1000とか2000くじらをつかまてもいい [wa 1000 toka 2000 kujira-o tsukamaete mo ii]	Is OK to catch 1000 or 2000 whales.
27	M	うん。いま日本はそれいじょうのくじらをつかまえてるの？ [un. Ima nihon-wa sore ijyoo-no kujira-o tsukamaeteru no??]	OK. Does Japan catch whales more than that now?

