Effects of task repetition in "Poster Carousel"

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This paper explores how learners' language output changes through immediate task repetitions. The focus is on fluency in a poster carousel task (Lynch & Maclean, 2001), which gives learners opportunities to repeatedly use their knowledge of the English language. Learners' speech rates and pause/time ratios are quantitatively seen in the transcribed speech data. The correlation between pair speech rates with different interlocutors and individual learners' use of different lengths of turns are also observed. In addition, there is a qualitative examination of how learners' language output changes. Learners' use of unfilled pauses and other time-creating devices, such as filled pauses, repetitions, and L1 transfers, is seen to have decreased and their frequent language reformulations are also observed over successive cycles. Learners' retrospective discussion on the effect of the task reveals that their interest in interactions with other learners is one of the important factors for task completion.

　この論文は、間をおかずにタスクを繰り返すことで学習者言語のアウトプットがどう変化していくかを探査するものである。回転木馬タスク(Lynch and Maclean, 2001参照)に見られる流暢さに焦点を当てる。回転木馬タスクは学習者が既に持っている知識を繰り返し使う機会を与えるように仕組まれたタスクである。発話のトランスクリプトデータの量的分析で学習者の発話率、ポーズ率が調べられ、更に、異なる対話者とのペア発話率と個々の学習者の長さの異なるターン使用との相互関連が検証される。また、学習者の言語アウトプットがどのように変化するかを質的に検証する。継続的に繰り返される活動を通して、学習者のポーズや音声ポーズ、語句の繰り返し、L1等の時間稼ぎ対策使用の減少が見られると共に、言語の再構築が頻繁に認められる。タスク効果についての振り返りディスカッションで、学習者同士の相互言語交流への興味がタスク完成の重要な要素になっていることが明らかになる。

Many Japanese still have a hard time communicating in English even after six years of studying despite their knowledge of the language. One reason might be that English classes in many high schools are still mainly focused on knowledge explicitly taught with much less attention on the use of the knowledge. In this way, error correction has remained a main concern for teachers. Focusing on the use of the target language is now in demand in the language classroom to improve learners' oral competence.

Task-based language learning, which uses language in the process of task completion, is one way to give learners opportunities to use the language. Some research on language fluency, accuracy, and complexity in learners' speech data has been introduced: a dual competence system of fluency, accuracy, complexity, and their trade-offs in learners' focus of attention (Foster & Skehan, 1996); the different proportion of them by task types (Skehan 2001); the effects of repetition of the same task and the repetition of the same task type on fluency, accuracy, and complexity (Bygate 2001); the emergence of them in learners' oral and written production in repeated tasks (Larsen-Freeman 2006). Fluency was measured by the number of pauses per c-unit (Skehan 2001), by the number of pauses per t-unit (Bygate 2001), and by the average number of words per t-unit (Larsen-Freeman 2006). Larsen-Freeman also qualitatively examined individual differences and the relation between the instability of language and a phase shift in the language learning system.

Following previous research, I quantitatively examined how learners' language production changed through task-based language learning in terms of fluency, accuracy, and complexity, and also qualitatively explored how their language use changed over two years (Nakamura 2007a; 2007b). Several types of pauses and time-creating devices such as repetitions and self-repairs were observed to be used by learners, and also individual differences were seen in the use of them (Nakamura, 2008). In this paper, I would like to see how learners' language changes in terms of fluency in immediate task repetitions in a poster carousel task.

Knowledge into active language use

One of the goals of second language learning is to be able to use the language without form/lexis searching. Researchers and language teachers have been searching for the best way to convert explicitly taught knowledge into actually usable knowledge: progress from declarative to procedural (Anderson 1982; Johnson 1996); i.e., shift *knowing that* (such as grammar and vocabulary) to *knowing how (*as shown by speaking and writing). Johnson mentions that "this distinction will cause no problems to most language teachers, who know well that knowing about English grammar is quite a different proposition from being able to use it" (p. 82).

Students who have learned English language focusing on grammar and translation have worked on building up *declarative knowledge* but seem not to have had many chances to orally use the language. This might be a reason why many language learners in Japan cannot use the language after many years of studying.

Bygate and Samuda (2005) claim that "a common learning and teaching problem is to get learners to integrate knowledge that is available to them into their active language use" (p. 37). They suggest that combining both strategic and on-line planning is one solution to this problem. Learners' experience of task processing with both strategic and on-line planning seems to help proceduralize the language knowledge. Bygate (2005), however, assumes "both declarative and procedural knowledge are needed at all phases, though that the user can exploit explicit declarative knowledge at times, which subsequently needs to be made implicit" (p. 116). He explains the process of language learning as follows:

…. the greater part of the learning process is concerned with developing strategic goal-oriented action, and building up sufficient amounts of experience for the learner to be able to operate intuitively. …. the phases oriented to the development of strategic and intuitive operation are seen as grounded in initial mastery of a number of relevant moves. (p. 116)

A poster carousel task is one such example. Learners explicitly study the content by preparing a poster, but when explaining it, they have to operate intuitively. As the name suggests, in this task learners go around and visit posters asking questions which the host students answer about each of the posters. The purpose of this task is to give learners an opportunity to repeatedly use their knowledge.

Some might be suspicious of such a task where learners may repeatedly make mistakes without any error corrections by their teacher. Lynch and Maclean (2001) argue in their research on the poster carousel that "learners gain from the particular sort of retrial available to them during the carousel, even without teacher intervention" (p. 159). Lynch and Maclean (2000; 2001) found evidence of learners' *attention to language* (such as self-corrections of vocabulary, pronunciation, and forms, and also corrections of pronunciation and grammar by the interlocutor), *attention to content,* and *linguistic improvements*. They found that higher-level learners consciously changed their English during the carousel while lower-level learners were not aware of those changes.

Task repetitions seem to have effects on learners' language especially on accuracy, according to Lynch and Maclean.

Then, how do they have effects on fluency? Learners' language might be influenced by their interlocutor. Larsen-Freeman (2006) reports that "individual developmental paths, each with all its variation, may be quite different from one another, even though in a 'grand sweep' view these developmental paths are quite similar" (p. 594). Even though learners' language output altogether shows a certain characteristic, their language output would be influenced by their interlocutor due to the nature of conversation, a co-constructed event of two speakers. Nakamura (2006) also finds that "participants have displayed a resilient collaborative power to find ways to overcome interactional problems" (p. 277).

Then how does learners' language output change over successive cycles of the task? If learners' individual differences affect their interlocutor's language output, do the speakers' speech rates change according to who their interlocutor is? Do learners really repair or reformulate their language through task repetitions without teacher intervention? I would like to see how learners' language is affected by task repetitions in terms of mainly fluency and if they really reformulate their language without teacher intervention.

Study

Participants

Following Lynch and Maclean, I set up a poster carousel task for six pairs of Korean and Japanese students: six male Korean students and six female Japanese students[1] who are studying in a Japanese university. Their language proficiency

levels are between pre-intermediate and pre-advance. (e.g., Step test pre-2nd - 2nd grade, TOEFL CBT 170-210, TOEIC 500-660). In addition, four Japanese participants have home-stay experience and one Korean student has experience living in English speaking country.

Task: 'Poster Carousel'

The theme of the task is "Korean and Japanese Cultures." Before starting the task, six Korean and Japanese pairs were formed and each participant made a poster based on that person's culture, on the same topic of their partner's in advance. The topics are sports, games, movies, food, hobby, and campus life.

First, each partner by turn explains his/her poster to the other person in the pair (Cycle 1). Then, for the first round Japanese students visit other posters asking questions one by one, while Korean students stay at their base to answer visitors' questions (Cycle 2-6). After Japanese students come back to their base, they rotate the roles of host and visitor. For the second round, Korean students visit other posters, while Japanese students stay at their base as hosts (Cycle 2-6). Each cycle (visit) is five minutes for visitors asking questions about the poster, except for the first cycle, in which partners explain their poster to each other (Cycle 1). This cycle is 10 minutes. After finishing the task, they fill out a questionnaire and discuss the merit of doing this task.

Hypotheses

1. Learners' use of unfilled pauses decreases through task repetitions.

2. Learners' speech rates increase through task repetitions.

3. Aspects of learners' language change by the interlocutors' speech.

4. Learners repair their language over successive cycles of the task.

5. Learners reformulate their language over successive cycles of the task.

Methodology

First, how learners' language output changed over successive cycles of the task was quantitatively seen with the average speech rate (the number of words/second) and pause/time ratio (percentage of overall time spent pausing) in turns with over 10 words or over 20 seconds in learners' transcribed speech data[3]. In my previous research (Nakamura, 2008), pauses are seen not only to search for words or forms but also to think of reasons, contents, and other purposes (e.g., for emphasis). To avoid those pauses for other reasons except for words or form searching, I prepared Korean students with a speech presentation on the same topic as that of the poster carousel before this task was carried out. In this way they have enough information about the topic. Furthermore, pauses to see posters or to wait for their interlocutor to understand (such as pauses between turns) were not counted. Non-lexicalized sound reactions to the interlocutor were also separated from filled pauses.

Second, pair speech rates and also the numbers of different lengths of turns (1-4, 5-9, 10-19, 20-29, and over 30 words)

produced in the interaction with different interlocutors were compared. Interlocutors' positive/negative effects on learners' language output would be seen in the changes of pair speech rates and the choice of different lengths of turns.

Finally, how learners' language output changed through task repetition was qualitatively examined to see if they repair or reformulate their language and how their use of time-creating devices change over time.

Results

A grand sweep view and individual differences

Figure 1 shows the average speech rate and pause/time ratio in over 10 words or over 20 seconds/turn of all the students' language output. The average learners' speech rate gradually increases, while the average pause/time ratio gradually decreases over successive cycles as predicted. The *t*-test of pause/time ratios between 1st and 6th cycles showed significant difference (p=.006), while the speech rate did not show any statistical difference, which means the transition of individual learners' speech rates has variation, possibly influenced by their interlocutor.

Though in the *grand sweep view*, the transition of learners' speech rates looks similar, pair speech rates with different interlocutors show some variation. Figure 2 shows pair speech rates of Korean student hosts (A, B, C) with six Japanese student visitors, and Figure 3 shows those of Japanese student hosts (D, E, F) with six Korean student visitors. There are some salient differences seen in the two graphs, especially in the combinations of Korean student hosts with Japanese student E (E), and Japanese student

hosts with Korean student B (B). Pair speech rate of A with E increased to 1.16 (average: 1.09), while that of B with E dropped to 0.74 (average: 1.08). On the other hand, the speech rate of D with B is 1.50 (average: 0.98), while E with B is 0.74 (average: 0.89). Students B and E possibly affected their interlocutors' speech rates.

Now, let us look at it from a different angle. Figures 4 and 5 show the average number of turns with different lengths (1-4, 5-9, 10-19, 20-29, and over 30 words/turn) produced in the sessions with six interlocutors. We can see B and E have a trend to talk in longer turns, which corresponds to the ones who could have affected pair speech rates. On the other hand, C and D tend to talk in relatively shorter turns. Learners' use of different lengths of turns seems to give some positive/negative effects on their interlocutor's choice of the lengths of turns.

Figure 6 and 7 show an example of how a speaker, who tends to speak in long turns, is influenced by different types of interlocutors. The Figure 6 shows the use of the different lengths of turns by Korean students in the interaction with E, who is a long turn speaker. A and C's choice of the lengths of turns were not influenced by E. However, the type of turns used by B, another long turn speaker, was greatly effected by this interlocutor. On the other hand, B's use of long turns is obviously seen in the interaction with D, who tends to speak in short turns (see Figure 7).
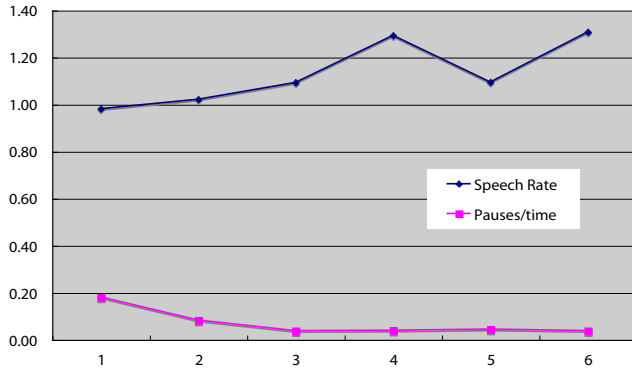
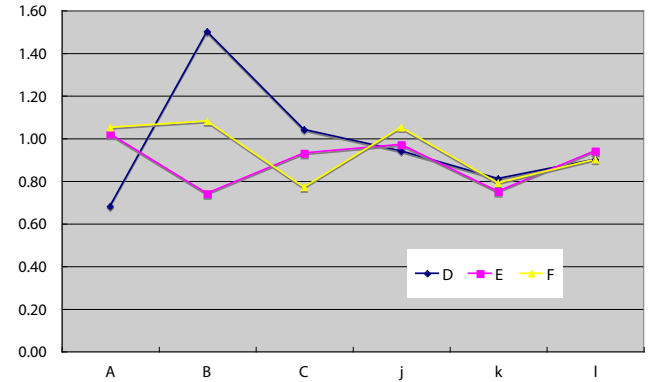**Figure 1. Speech rate & Pause/time ratio in over 10 words or 20 seconds/turn**

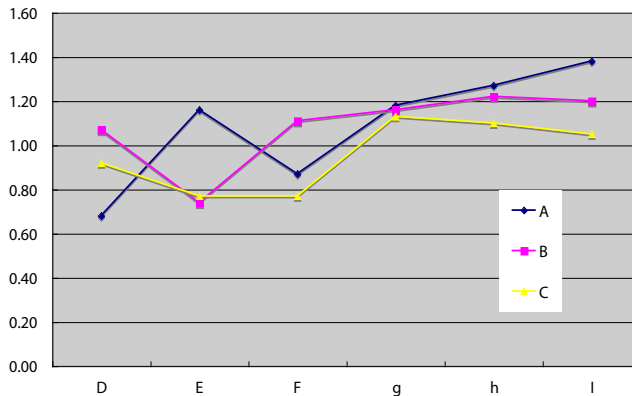**Figure 3. Pair speech rates (Japanese student hosts)**

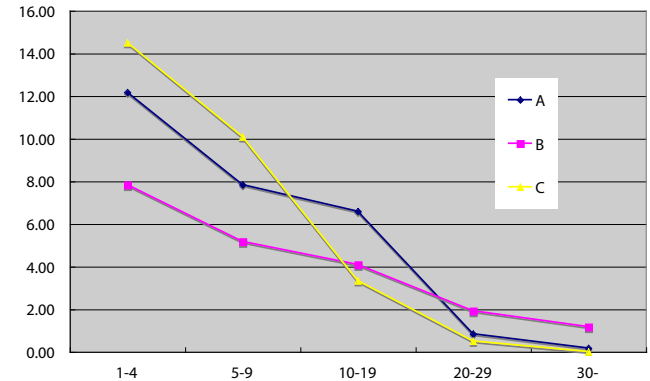**Figure 2. Pair speech rates (Korean student hosts)**

Figure 4. The average number of turns with different lengths (Korean student hosts)
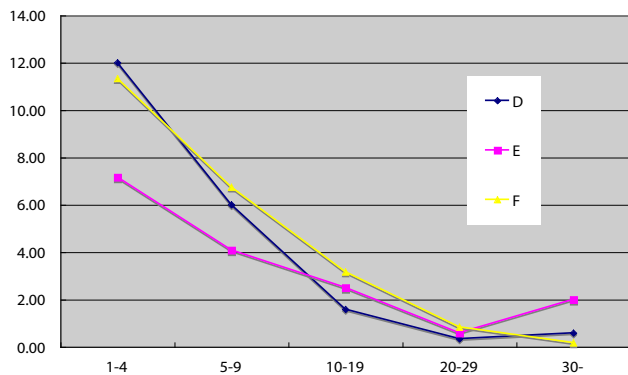
Figure 5. The average number of turns with different lengths (Japanese student hosts)
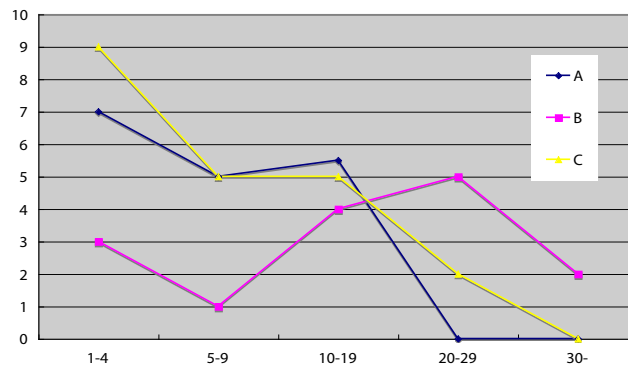

Figure 6. The use of the lengths of turns by Korean students with Student E
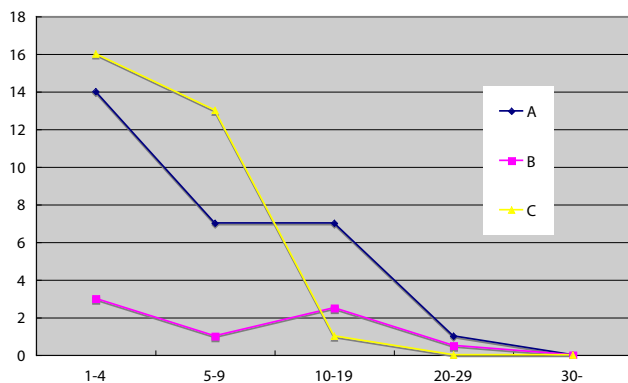

Figure 7. The use of the lengths of turns by Korean students with Student D

Effects of task repetitions

Some research on the effects of task repetitions has been reported to date (Bygate, 2001; 2006; Bygate & Samuda, 2005; Lynch & Maclean, 2000; 2001; Larsen-Freeman, 2006). In this study we qualitatively examine about how the patterns of pauses and other devices used by learners change and how they reformulate their language through task repetitions in learners' transcribed speech data.

Example 1: In the case of D

The following excerpts are learners' speech samples of talking about computer games. Excerpt 1 is from the first cycle and Excerpt 2 is from the fifth cycle of the carousel. Excerpt 1 shows the interaction of Japanese student D (host)

and Korean student A (host). They explain their posters to each other in this cycle. D is asking A about types of on-line computer games in Korea. She has to explain them later if visitors ask her about them.

Excerpt 1: Cycle 1

1. A: Do you have any questions for my poster?   (3 sec. 8words)

2. D: (2) Mu:::m , (4) mu::m , hhha. (3) Why (1) **why** name carrier mode match mode (2) **ma**

3. umm (4) *match no hantai wa carrier ja naijan (the opposite of 'match' is not 'carrier')*. (32 sec. 6 words, PA: 16 sec, SR: 0.19, PR: 0.5)

4. A: Huh?

5. D: *match no hantai wa carrier ja naijan (the opposite os 'match' is not 'carrier'). Tsuino*

6. *bun (the counterpart).*

7. A: Uh , (1) u::h , uh Korean mode is (1) in ma (2) u::h **Korean mode** is (2) it is na **Korean**

8. **mode** is match mode *no* (2) *hantai (opposite of it)*. (20 sec. 5 words, PA: 8 sec, SR: 0.28, PR: 0.4)

9. D: *Hantai*? (*opposite*?) Hhhh

10. A: Uh Korean mode means **it means** I manage my team. (7 sec. 9 words)

11. D: See? (1 sec)

12. A: my **my** team and I eh (1) **I** take Koshien and I manage my team then **then** means Korea.

13. (2) Korean means work. (15 sec. 17 words, PA: 3 sec)

14. D: Work? (1 sec. 1 word)

15. A: Work. Work is ***my work means*** managing team and

16. D: Uhhun (1 sec)

17. A: match **match** mode is (1) also playing without difference. (11 sec.14 words, PA: 1 sec)

Note. (number): pausing time, umm : filled pauses, **bold**: repetition, ***bold italics***: self-repair*, italics*: L1 *(translation)*, PA: total pausing time, SR: speech rate, PR: pause/time ratio

D uses lots of L1 when she is having difficulties with output in the first cycle above (Lines 3, 5-6, 9). The amount of pausing time, the use of L1 and filled pauses are salient. A also has a hard time to construct his explanation, struggling with lots of repetitions and pauses (Lines 7, 10, 12, 15, 17).

The following excerpt shows how D's language output on the same topic changes in the fifth cycle. In this cycle she is talking with Y, the fifth visitor. Student D still pauses in several places but much less than in the first cycle: Pause/time ratios are 0.5 in Cycle 1 but 0.11 in Cycle 5 in the turns with over 20 seconds. Here she is explaining a computer game FIFA on-line (an on-line soccer game) pretty smoothly, though she was using L1 a lot in the first cycle: Speech rates are 0.19 in Cycle 1, but 1.12 in Cycle 5 in the same turns above.

Excerpt 2: Cycle 5

18. Y: Eh, eh title I know I um eh **I *know the title*** of game, but I shee I didn't play game. (18sec. 12 words)

19. (2)

20. D: This **this** game has two modes, (2) one is carrier mode and match mode. Carrier mode

21. play with computers, but match mode play with (1) other players in um ***by*** internet. You

22. manage your favor **favorite** team manage

23. Y: Ha? (1sec)

24. D: manage

25. Y: Ah, eh. (1.5sec)

26. D: your favorite team and you get points through the games. (1) Humm, (2) I had carrier

27. mode um? match mode more interesting than carrier mode. (4) Do you know it? (65sec. 58 words, PA: 7 sec, SR: 1.12, PR: 0.11)

Example 2: Student B

The following excerpts (3-5) are speech samples of student B. He explains the same issue 'tae kwon do' in the three cycles. He is an advanced English speaker, who stayed in the US from the first to the fourth grade in elementary school.

Excerpt 3: Cycle 2

28. *Well*, the biggest difference is that *(1)* judo don't use legs, ***they don't have leg* attacks** but

29. this 'tae kwon do' is*, like kind of,* they have *eh **they attack with both hands and* legs**, but

30. usually legs ***they use legs to attack.***

Excerpt 4: Cycle 3

31. Ummm, *well, first of all,* ***judo doesn't use legs***

32. Yes, ah, eh they are *like* (.) when they tuckle they use legs but (.) ah:::hn, *what can I say,*

33. 'tae kwon do' is *like kind of* kicking skills, ***they have kicking skills. They use hands,*** *but*

34. ***usually they use legs. Their legs are much more stronger than hands.***

Excerpt 5: Cycle 5

35. … ah::n, (.) this is a kind of traditional sport in Korea. Ah::h, *well* (1) You wear similar eh

36. uniforms (1) like judo↑ but ah::h, *well,* ***the biggest difference from judo*** is *like* **is** *(1)* eh

37. ***use foot. They can use foot to* kick the other person**. Hhhhh.

38. Eh And so (.) ***they can use both hands and both legs,*** *but (.)* ***usually*** they use legs to

39.   <u>***attack***</u>.

Note. Italics: prefabricated chunks, <u>***Underlines***</u>: reformulations over the cycles.

 B said *"judo don't use legs"* (Line 28) in the second cycle, but corrected it to *"judo doesn't use legs"* (Line 31) in the third cycle, though he didn't repair it on the spot in the second cycle. He also used the expression *"they use legs to attack"* (Line 38-39) in the fifth cycle, which was reformulated (Line 30) in the second cycle. He said *legs* (Lines 28-30) in the second and (Lines 31-32, 34) third cycles but used *foot* instead (Line 37) for the same meaning in the fifth cycle, which is more precise. He also inserted lots of prefabricated chunks such as 'well', 'like', 'kind of', 'what can I say?' instead of unfilled/filled pauses.

Summary and discussion

As we have seen, learners' language output improved through immediate task repetitions of the poster carousel in terms of fluency (see Figure 1). Individual learners' output, however, was observed to be influenced by their interlocutor, such as positive/negative effects on pair speech rates and their use of different lengths of turns. Speakers with long turns were observed to have a negative effect on each other, while a speaker with long turns seems to have received a positive effect by a short turn speaker in terms of the pair speech rate and the use of long turns. Learners also syntactically and semantically reformulated their language output through task repetitions. The topics unfamiliar in their culture seem to have been repeatedly asked, such as 'tae kwon do', 'FIFA' (a popular on-line soccer game in Korea),

and unknown movies in Japan. Learners were often seen to repeatedly reform their explanation for their interlocutor to understand.

In the questionnaire almost all the students noticed that the use of unfilled pauses, filled pauses, repetitions, and L1 or Japanese decreased over successive cycles. A couple of students mentioned the conversation went smoothly when their interlocutor was interested in the topic. Their interlocutor's interest in the topic would also affect their lengths of turns. Further study of qualitative analysis of individual cases is needed to see the nature of interaction by different interlocutors. In the discussion about the merit of doing this task, most students mentioned they could get to know each other better and enjoyed this task. In addition, they realized that it became easier and easier to explain the poster by repeating the information. The social aspect in the implementation of this task is again seen to be an important phase in task completion.

Conclusion

Now common questions in teaching come into mind. Is it really necessary to make error corrections every time? Is language messiness in the peer conversation a negative aspect in language learning? In secondary schools in Japan, in general, error correction is still teachers' main concern. Fossilization through the messiness of peer conversation is often said to be teachers' concern as well.

With all the facts we have seen in this paper, I would like to conclude that learners have the potential to reformulate their own language through task repetitions even without

teacher intervention, and furthermore that the messiness in their speech is a natural phenomenon and could be necessary to proceduralize the language. Larsen-Freeman (2006) argues as follows:

> The messiness is not 'noise', but rather a natural part of dynamically emergent behavior assembled by the individual with a dynamic history of engaging in such tasks, with his or her own self-identified (or jointly identified) target of opportunities for growth. (p. 615)

Notes:

[1] One student has Chinese nationality among six students whose first language is Japanese. She grew up in Japan since she was three years old.

[2] In Lynch and Maclean's studies, each pair produced one poster, but in this study each participant produces one poster based on his/her culture. In this way there are more chances that visitors may ask the same questions about issues in the different culture they are unfamiliar with.

[3] In this way we can solve some problems of speech data: short turns in general make a speech rate fast while long turns slow it down; there are some variation of the number of words and time spent in a turn, e.g., some include 17 words in 9 second while some only 4 or 5 words in over 20 seconds.

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References

Anderson, J. R. (1982). Acquisition of cognitive skill. *Psychological Review 89*(4), 369-406.

Bygate, M. (2001). Effects of task repetition on the structure and control of oral language. In M. Bygate, P. Skehan, & M. Swain (Eds.), *Researching pedagogic tasks second language learning, teaching and testing* (pp. 23-48). Longman, Pearson Education.

Bygate, M. (2005). Oral second language abilities as expertise. In K. Johnson (Ed.), *Expertise in second language learning and teaching* (pp. 104-127). Hampshire: Palgrave Macmillan.

Bygate, M. (2006). Areas of research that influence L2 speaking instruction. In E. Uso-Juan & A. Martinez-Flor (Eds). *Current trends in the development and teaching of the four language skills* (pp.159-186), Berlin: Mouton de Gruyter.

Bygate, M. & Samuda, V. (2005). Integrative planning through the use of task-repetition, in R. Ellis (Ed.), *Planning and task performance in a second language* (pp. 37-74). Amsterdam: John Benjamins.

Foster, P. and Skehan, P. (1996). The influence of planning and task type on second language performance. *Language Teaching Research* 3, 299-323.

Johnson, K. (1996). *Language teaching of skill learning.* Oxford: Blackwell.

Larsen-Freeman, D. (2006). The emergence of complexity, fluency, and accuracy in the oral and written production of five Chinese learners of English. *Applied Linguistics* 27(4), 590-619.

Lynch, T. & Maclean, J. (2000). Exploring the benefits of task repetition and recycling for classroom language learning. *Language Teaching Research* 4(3), 221-250.

Lynch, T. & Maclean, J. (2001). A case of exercising: Effects of immediate task repetition on learners' performance. In M. Bygate, P. Skehan, & M. Swain (Eds.), *Researching pedagogic tasks second language learning, teaching and testing* (pp. 141-162). Harlow: Pearson Education.

Nakamura, E. (2007a). Task-based language learning through debate. *CASELE Research Bulletin* 37, 1-10. Hiroshima: The Chugoku Academic Society of English Language Education.

Nakamura, E. (2007b). Learners' decision-making in task-based language learning through debate. In K. Bradford-Watts (Ed.), *JALT2006 Conference Proceedings,* 267-283. Tokyo: JALT.

Nakamura, E. (2008). The process of language learning seen in the use of time-creating devices in speaking. *CASELE Research Bulletin* 38, 1-10. Hiroshima: The Chugoku Academic Society of English Language Education.

Nakamura, I. (2006). Understanding 'stuckness': Descriptions and interpretations of how EFL speakers and a native speaker co-manage talk-in-interaction. Unpublished PhD thesis. Lancaster University, UK.

Skehan, P. (2001). Tasks and language performance assessment. In M. Bygate, P. Skehan & M. Swain (Eds.), *Researching pedagogic tasks second language learning, teaching and testing* (pp. 167-185). Longman, Pearson Education.