



Fluidity of Peer Interaction in a Japanese Language Classroom

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Abstract

This study examines the peer interaction in a small group work task of a pre-intermediate level Japanese language classroom at an Australian university. Based on Sociocultural Theory (e.g. Vygotsky, 1978), the study explores the opportunities for learning that occur during the pair/group work. Data include video-recordings of learners engaging in a group work task, interviews incorporating retrospective stimulated recall, and the researcher's observation of the class. Findings show that mutual assistance in peer interaction provides various learning opportunities, and that not only do more proficient learners assist less proficient learners, but that the reverse situation also occurs. The study reveals the changeable nature of expert and novice roles in peer interaction, which comes not only from different levels of expertise, but also from the learners' relative positioning of themselves in interaction with their peers. Although the current study shows a number of learning opportunities in peer interaction, findings also indicate negative aspects. The implications for promoting better learning opportunities in peer interaction are discussed.

1 Introduction

Recently, an increasing number of second language (L2) learning studies has begun to investigate peer-peer interaction, focusing more on the social nature of learning. These studies draw upon the framework of Sociocultural Theory, which regards cognition and knowledge as constructed through social interaction (e.g. Lantolf & Appel 1994; Ohta, 1995, 2000, 2001; Lantolf, 2000; Morita, 2000; Kobayashi, 2003). Some of them have shown that not only more proficient learners assist their peers, but mutual assistance among learners of similar proficiency also occurs (e.g. Donato, 1994; Ohta, 1995, 2000, 2001; Swain & Lapkin, 1998; Guerrero & Villamil, 2000). As a result, peer interaction is now considered as a site of L2 learning (e.g. Kowal & Swain, 1994; Lapkin, Swain & Smith, 2002; Swain, Brooks & Tocalli-Beller, 2002). However, research findings also indicate that the quality of interaction greatly depends on those involved and the context in which they interact, and that interaction becomes more conducive for language learning if it is conducted in a collaborative manner (e.g. Guerrero & Villamil, 1994; Storch, 2002). In other words, we can not assume that learners automatically access their learning opportunities in peer interaction.

Although a few studies have investigated factors affecting peer-peer interaction such as proficiency (Swain & Lapkins, 1998; Lapkin et al., 2002), the individual learner's goal (Shima, 2007), and his/her relationship with peers (Clarke & Silberstein, 1988; Foster, 1998), with notable exceptions such as Kasper, 2004 and Mori, 2004, not much attention has been paid to the learners' *fluidity* in terms of their role and orientation to the given task involving peer interaction. Working in a pair or a group, the learners have no choice but to negotiate and manage their behavior so as to cooperate with one other to get the task accomplished. In the course of this, learners may change

their behavior or orientation to the task depending on the immediate contextual factors. Therefore, to understand what occurs in these events, it is necessary to study the fluidity of peer interaction in its totality, including the learners' affective dimensions and the context surrounding the learners.

In this study, focusing on the learners' interaction while engaging in an unstructured task in which they are not assigned pre-decided roles, the researcher investigated how the learners managed their group work. More specifically, by drawing upon the concept of Collaborative Dialogue suggested by Swain and her colleague (e.g. Swain, 2000; Lapkin et al., 2002; Swain et al. 2002), how learners solved problems or co-constructed knowledge when they face problems, were explored in relation to their fluid roles in interaction. Through the close examination of the learners' interaction processes with their peers, together with their introspective accounts in interviews, the reciprocal influence between the learners' interaction and their roles, and how such fluid interaction provided them with opportunities for learning are explored.

2 Collaborative dialogue: Theoretical perspective of the study

In recent years, Sociocultural theory, which is based on the large body of work by the late Russian psychologist Vygotsky, has begun to be applied to L2 learning research (e.g. Lantolf & Appel, 1994; Ohta, 2000; Lantolf, 2000). Vygotsky (trans. 1978) regarded the human mind as mediated, and believed that the process of its development was achieved through the use of physical as well as symbolic tools. In particular, he proposed, through one of the most important symbolic tools, namely language, humans direct and organize their mental activity such as thinking, learning, or solving problems. In this view, new knowledge is first seen on a social level, then internalised on an individual psychological level. In other words, learning is an internalising process of socially or interpersonally constructed knowledge through interaction (Vygotsky, 1978; Mitchell & Myles, 1998; Lantolf, 2000).

Applying this Vygotskian view of development to L2 learning, Swain (2000) proposed the concept of *collaborative dialogue*. This is "the dialogue in which speakers are engaged in problem-solving and knowledge building" (p.102). Swain further explains collaborative dialogue as "where the language use and language learning can co-occur. It is language use mediating language learning. It is cognitive activity and it is social activity" (Swain, 2000, p.97). In this dialogue, the language serves the role of a socially constructed cognitive tool. Learners use the language as a tool to build knowledge, as well as to interact with each other. Swain (2000) argued that the analysis of collaborative dialogue gives researchers access to investigating the L2 learning process in action.

Based on their series of studies focusing on learners' collaborative dialogue, in which they use language in problem-solving or knowledge construction, Swain and her colleagues have discussed the support of collaborative dialogue for learners' second language development in terms of the opportunities for learners: (1) to notice what they do not know, (2) to form and test hypotheses, (3) to use unknown language by producing before comprehending, (4) to talk themselves into understanding, and (5) to co-construct language or linguistic knowledge (Swain & Lapkin, 1998, 2002; Swain, 2000, 2005; Lapkin et al., 2002). In addition to revealing the above features of collaborative dialogue from corpus data and learners' comments from interviews, Swain and her colleagues confirmed evidence of learning in peer interaction by incorporating post-test data into their research design (e.g. Swain & Lapkin, 2002; Tocalli-Beller & Swain, 2005).

The above-mentioned concepts of collaborative dialogue are operationalized as language-related episodes (LRE) (e.g. Lapkin et al., 2002). LRE are defined as "any parts of the dialogue where learners talk about the language they are producing or produced, question or reflect on their language use, or correct themselves or others" (Lapkin et al., 2002, p.489). This operationalization allows the researcher to frame the unit of analysis. Focusing on LREs, this study examined the learning opportunities in the dialogic process of problem solving or knowledge construction for the learners involved.

3 Methodology

3.1 Context of the study

The data for this study were collected in the second semester of a second year Japanese class at an Australian university. In this course, students study Japanese for four hours per week, comprising a one-hour lecture, a one-hour tutorial, and a two-hour tutorial, over a 13-week semester. Because of the large numbers of students, they were divided into two groups for the lecture, and six groups for the tutorials. The study focused on participants in two groups in the two-hour tutorial class of Week 5. A textbook, entitled *Nakama 2: Japanese Communication, Cultures, Context* (Hatasa & Hatasa, 2000) is used in the course. The task analyzed in the study concerned the learning of *kanji* (Chinese character). Authentic Japanese newspapers or magazines published for Japanese people living in Melbourne were prepared as learning materials. The Japanese newspapers or magazines were distributed to each group. The students were to choose one article from the newspaper or magazine, glance through it, and highlight the previously studied or already known *kanji*. The teacher also instructed the students to find *kanji* appearing in the chapter that they were studying at that time. In this task, the learners were not assigned pre-determined roles for the task completion. As a result, each group approached differently the task of deciding how to work together, either taking independent initiatives, or negotiating implicitly or explicitly with peers.

3.2 Participants

The participating students were all foreign language learners of Japanese. The six students Mary, Antonio and Daniel in Group One, and Rick, Michael and Guy in Group Two, were observed using video and audio recordings of their interactions in their group work, and five of the students (all but Guy) also took part in an interview session with the researcher. The profiles of the learners are listed in Table 1 below.

Name	Gender	Background	Japanese Learning experience
Mary	Female	Chinese (Hong Kong), living in Australia for 11 years	1.5 years at university level
Antonio	Male	Malaysian Australian, born in Australia	1.5 years at university level 1 year at school
Daniel	Male	Anglo-Australian	13 years (Prep to year 12) at school This is his first semester studying Japanese at university level
Rick	Male	Anglo-New Zealander	1.5 years at university level
Michael	Male	Anglo-Australian	1.5 years at university level
Guy	Male	Anglo-Australian	Unavailable for interview ²

Table 1: Profile of learners

3.3 Data collection procedures

Data were collected from three different sources: video recordings of classroom interaction; the researcher observations of the class; and interviews with the learners. In order to analyze the participants' actual process of engagement in the classroom, video recordings collected the learners' interaction data. A video camera was set up near to the group of participants. The camera was focused on the participants and was left in that position for the entire lesson. The researcher attended the class and took observation notes on what was happening, focusing particularly on participation in the specified pairs/groups.

Two different forms of semi-structured interviews were employed. The first set of interviews was designed to elicit participants' comments on their cultural and educational background, their

purpose in studying Japanese, and their overall perception about their own participation in the classroom. The second set of interviews used a 'follow-up' format (Neustupny, 1990; Fan, 2002). These aimed to elicit the learners' retrospective views regarding their behavior when engaging in the group work at the class observed. In the follow-up interviews, the video-recording of the participants' conversations from their engagement in the group work activities were shown memory as a stimulus to recall. Each interview took approximately 30 minutes. The sessions were recorded on a digital recorder.

The audio recordings in the classroom and interview sessions were transcribed, and the notes on relevant non-verbal behavior from the video recordings and researcher observation comments were added to the transcriptions. By using a micro-ethnographic approach (Erickson, 1992), the participants' classroom interaction data were analyzed by linking observation notes and interview comments from the learners.

4 Findings

The examples below show the process by which the learners solved problems and built knowledge through their interaction, where their jointly constructed performance was able to become superior to their individual competence. Although various types of learners' assisting behavior were observed, four extracts which show how the learners' roles in the group impacted on their interaction have been presented for particular attention. Some negative aspects of peer interaction are then discussed.

4.1 Learner's self positioning as an expert

4.1.1 Monitoring peers' understanding

In the following extract, Guy and Michael face a problem in recognizing the *kanji* compound *gaikoku*, which means "foreign countries". The compound consists of two *kanji*, one for "outside" and one for "country". Although Guy and Michael could both recognize the *kanji* for "country", they were having a problem in figuring out the *kanji* for "outside". Michael asked Rick for help (line 232). Rick's behavior shows how a more proficient learner deploys the role of teacher, who instructs and then monitors the understanding of his "students".

Extract 1 (Kanji: Rick, Michael and Guy 15/9/05)

- | | | | |
|---|-----|----------|---|
| | 229 | Guy: | that is (1.2) we are doing this? (.) country? |
| | 230 | Michael: | yeah (.) that's country |
| | 231 | Guy: | country (.) and that's place (.) isn't it? |
| | 232 | Michael: | I think. Rick? |
| → | 233 | Rick: | oh (.) not place (.) but like location |
| | 234 | Guy: | yeah (.) it should be(.) is that north? |
| → | 235 | Rick: | =no (.) outside (.) <i>soto</i> [outside] |
| | 236 | Guy: | yeah (.) outside |
| | 237 | Michael: | outside countries (.) yes |
| | 238 | | (1.4) |
| | 239 | Guy: | foreign countries? |
| | 240 | Michael: | oh (.) <i>gaikoku</i> ? [foreign country?] |
| → | 241 | Rick: | yeah (.) <i>gaikoku</i> [foreign country] |

In response to a request for help from Michael, Rick first off gives him just a hint (line 233). Rick seems to want to encourage his peers to think, but then assists them further when he recognizes that his peers are still having problems (line 235). Rick's hint works as a prompt for Michael and Guy's interaction, where they guess the meaning and reading of the compound. Finally, Rick confirms their answer (line 241).

In this extract, Rick changes the nature of his assistance from giving a more general hint (line 233), to providing a specific reading of the *kanji* (line 235). By adjusting his assistance, he reduces the difficulty of the problems, but by not giving them the full answer, leaves the responsibility of final solution of the problem to his peers.

For their part, faced with their problem, Michael and Guy actively test their hypothesis and thereby solve it. Hypothesis testing is one of the supports for learners' L2 learning in collaborative dialogue. In this example, Guy and Michael not only test their hypothesis, but they actively incorporate the newly gained hints from Rick into their thinking and thus produce a better hypothesis. In doing this, Guy and Michael both succeed in solving their problem, informing Rick, the more proficient peer, about their current stage of understanding and receiving further help through the dialogic interaction.

Rick, the expert, also seems to benefit from his assisting behavior for his peers. This is clearly shown in the following section, where Rick's case is used to investigate how a more proficient learner can also experience opportunities for learning in a collaborative dialogue.

4.1.2 *Responsibility of being an expert*

Rick has a higher level of Japanese proficiency than his peers in the group. However, from the beginning, Rick seems reluctant to participate in the group work. In the follow up interview, Rick explained the reason for his reluctance as follows:

I preferred *kanji* learning with cards because we have a quiz next week. I suppose it (cards) can work for me (for the quiz preparation). Actually I just prefer to study *kanji* and vocabulary on my own at home, so I don't really pay too much attention to *kanji* learning in the classroom anyway. (Rick 19/9/05)

As can be seen in his comments above, Rick does not feel the *kanji* learning activity in the classroom is valuable for him. Furthermore, the importance of *kanji* learning in the classroom is limited to preparation for the *kanji* quiz, and he felt negatively about the newspaper task because it seemed to have no relationship to the quiz. During the group work task, Rick mostly just read the textbook by himself, without participating in the group work.

However, on some occasions, he did make a contribution, particularly when his peers asked him questions, as seen in Extract 1 above. Other interaction data similarly show that when approached by his peers, Rick not only answered their questions, but also tried to teach or provide them with a further explanation. In these moments, it can be said that his regard for his peers took precedence over his own study. The asking of questions by his peers, who identified themselves as possible novices, allowed Rick to see himself as an expert compared with them. As a result, he invested his time and effort as an expert and took on the role of teacher for that moment. Given his attitude to the task, his concern about doing well on the quiz, and his preference for learning *kanji* differently, if the situation had not been structured as group work, he might well not have engaged in the task his peers were involved with, and so would never have positioned himself as an expert and teacher of his peers.

Extract 2 and his interview comment below further confirm Rick's positioning himself as an expert in his group and show how such positioning influences the collaborative learning in pair/group work.

Extract 2 (Kanji: Rick, Michael and Guy 15/9/05)

- 124 Michael: is that ah (.) spring (.) or autumn?
 125 Guy: n? (.) well
 126 (1.2)
 127 Michael: (looking at Rick) can you write spring?
 128 Rick: it's like this (writing *kanji* on his notebook)

- 129 Michael: ok (.) then what's autumn? (.) is it autumn?
 130 (pointing out the *kanji* in the article)
 131 (3.4)
 132 Rick: I'm not sure (.) maybe not (.) but I'm sure spring is like this
 133 (showing his writing)
 134 Michael: Ok
 135 (2.4)
 → 136 Rick: (Rick started looking at the textbook)
 137 (2.2)
 138 Michael: it's *ichi* [one] (laugh)
 139 Guy: I know that (laugh)
 140 (10.2)
 → 141 Rick: yeah (.) here (showing his textbook to Michael) (3.6) spring and autumn
 142 Michael: ok (.) and what's this?
 143 Rick: that's *te* [hand] (2.2) where is the *kanji*?
 144 Michael: which one?
 145 Rick: the one we're looking at (.) like spring or autumn
 146 Michael: aa (.) here (pointing out the *kanji*)
 147 (2.6)
 → 148 Rick: so (.) that's not autumn

In this extract, Michael faces the problem of not being able to recognize a particular *kanji*, though he guesses that it is either “spring” or “autumn” (line 124). So he asks Rick for help in writing the *kanji* for “spring” (line 127). Although Rick is able to write the character as requested (line 128), he is not able to answer Michael’s next question, about the *kanji* for “autumn” (line 132). This prompts Rick to start looking for the *kanji* in his textbook (line 136). But Michael’s interest has already moved to the next *kanji* (line 138). However, Rick keeps looking in his textbook, and after some time searching the *kanji*, he finds “spring” and “autumn” and shows them to Michael (line 141). Michael acknowledges Rick’s efforts immediately but simply, just saying “OK” (line 142), and then again moves on to the next *kanji*. Rick meanwhile is still pursuing the initial objective of finding out whether the *kanji* in the newspaper is “spring” or “autumn” (143 and 145). In the end, Rick does find out that the *kanji* in question is neither “spring” nor “autumn” (line 148).

In his follow-up interview Rick commented as follows on his behavior in checking the *kanji* in the article:

There were lots of *kanji* we were not sure of [in the newspaper article]. They [Michael and Guy] often asked me, and often they believed what I said, so I was checking in my book just to make sure, because I don't want to say something wrong. I was just saying what I thought and went to my *Nakama* textbook to verify. (Rick 19/9/05)

His remarks show that Rick was checking the textbook based on his sense of responsibility as an expert for his peers in the group. By so doing, Rick also created a learning opportunity for himself to check the *kanji* he was unsure of. In other words, aware of being the expert prompted him to check and consolidate his knowledge for the benefit of his peers, but as a result, he also got to mediate his own learning with the tool of his textbook.

Both Extracts 1 and 2 give clear evidence that Rick’s self positioning as the expert in the group determines his orientation to the interaction. However, at the same time, the behavior of Rick’s peers, asking him questions and requesting help, also contribute to determining Rick’s position as the expert in the group. As the expert, Rick diagnoses his peers’ understanding through interaction to provide appropriate assistances. In addition, such interaction also provides the opportunity for Rick to notice what he, himself, does not know, himself, and motivates him to check and correct his own knowledge. Thus, for participants like Rick, the collaborative dialogue is shown to be a potential site for monitoring both understanding of their peers and themselves, which can form the base of an on-going construction of new knowledge for all.

4.2 Fluidity of learners' roles in interaction

In addition to the explicit roles of expert and novice seen in the example of Rick and his peers, the following two examples show that the learners' roles can change moment by moment. In Extract 3, we see Mary, Daniel and Antonio face a problem regarding the reading of the compound *chuugakkoo* (middle school). Although they seem to be confused about the reading and misread the compound as *gakusei* (student), *chuugaku* (shortened version of the reading for middle school), or *chuugakusee* (middle school student), they collaboratively solve the problem regarding the reading. This interaction leads to further discussion of Japanese vocabulary for “middle school students” and “high school students”.

Extract 3 (Kanji: Mary, Antonio and Daniel 15/9/05)

- 152 Mary: *chuu* [*gaku* [middle school]]
 153 Daniel: [*gakusei* [student]]
 → 154 Antonio: =no (.) not *gakusei* [student] (.) see (.) same (.)
 → 155 *gakkoo* [school] (.) so should be *chuugakkoo* [middle school]
 156 Daniel: *chuu* [middle] (.) middle?
 157 Mary: (laughs) yeah (.) *chuugakkoo* [middle school] (.) middle school
 158 Daniel: that one (.) then (.) how do you say middle school student (.)
 159 Mary: oh (.) yeah (.) *chuugakkoo* [middle school] (.) middle school
 160 and *gakusei* [student] (.) student (.)
 161 Daniel: n? *chuugakkoogakusei*? (incorrect word)
 → 162 Antonio: =no (.) *chuugakkoosei* (incorrect word) (.) n? (2.2)
 163 no no (.) *chuugakusei* [middle school student]
 164 yeah *chuugakusei* [middle school student](.) like (.) *daigakusei* [university student]
 165 Daniel: n? (.) well (.) *daigaku*? [university?] and *gakusei* [student] (.)
 → 166 yeah *daigakusei* [university student]
 167 Antonio: but high school student? *kookoo* [high school] and
 168 *gakusei*? [student?] *koogakusei*? (incorrect word)
 169 Mary: no (.) *kookoousei* [high school student] (.) drop off *gaku* [study] in *gakusei* [student]
 170
 171 Antonio: (writing the *kanji* on the notebook and showing her peers)
 172 Daniel: ok (.) *kookoousei* [high school]
 Antonio: yeah *kookoousei* [high school]
 yeah (.) I think I know it (.) but looks different in *kanji*

In lines 152 and 153, Mary and Daniel are trying to read the *kanji* compound *chuugakkoo* (middle school). However, Daniel misreads the word *gakkoo* (school) as *gakusei* (student). Antonio, in lines 154 and 155 corrects Daniel's mistake by pointing out the previously recognized *kanji* compound of *gakkoo* (school) in the article. Here, Antonio shows his expertise and helps his peers. In line 157 then, with assistance from Mary, they achieve *chuugakkoo*, the correct reading of the compound of “middle school”.

The interaction described above, however, becomes the prompt for Daniel to raise a new problem, in relation to the word for “middle school student” in line 158. Daniel tries out a hypothesis in line 161, by combining two words for “middle school” and “student”, which Mary utters in lines 159 and 160. In line 162, Antonio corrects Daniel's hypothesis by suggesting an alternative word. However, his hesitation leads him to reflect on his utterance, and he corrects the word to *chuugakusei*, the right word for “middle school student” by himself in lines 163 and 164. In this utterance, Antonio applies his knowledge about the word *daigakusei* (university student), to finding the correct word for “middle school student”. Based on Antonio's utterance, Daniel confirms the lexical rule in *daigakusei* (university student), which consists of *daigaku* (university) and *gakusei* (student) in lines 165 and 166.

In lines 167 and 168, Antonio further raises a question concerning the lexicon for “high school student”. He tries his hypothesis for the word as *koogakusei*, by combining a word *kookoo* (high school) and *gakusei* (student). In line 169, Mary challenges Antonio’s erroneous utterance and corrects him by teaching him the rule for the lexicon. Antonio shows his understanding in line 171, and Daniel follows him.

In short, Antonio, who plays the role of expert in earlier parts of the interaction (i.e., lines 154 and 155), becomes a novice when he encounters a different problem (i.e., lines 167 and 168). As Donato’s (1994) study also reveals, even though each learner has limited knowledge and hence there is no peer who has greater expertise than the others, each learner’s contribution reaches a higher level of problem-solving ability in the task. Similar to his finding, this example shows that learners solve their problem by means of co-constructing knowledge in collaborative dialogue.

In addition to this, the whole sequence in the example shows that learners not only solve their problem, but, also through peer interaction, expand the knowledge gained to achieve further understanding of the language. In other words, the solving of the original problem they faced during the task had a ripple effect and resulted in them further extending their discussion. And as a result of this collaborative dialogue, they achieved a more systematic understanding of the lexicon.

Extract 4 below also provides evidence of the fluidity of learners’ roles in peer interaction. However, in this example, unlike the one above in Extract 3, the learners seem to play roles more consciously influenced by their relative positioning of themselves in the group.

Extract 4 (Kanji: Mary, Antonio and Daniel 15/9/05)

- | | | |
|-------|----------|---|
| 160 | Mary: | <i>nashi</i> (mispronunciation of <i>nishi</i> [west]) (.) aa (.) west (.) south |
| 161 | | <i>nashi?</i> (mispronunciation of <i>nishi</i> [west]) <i>nishi?</i> [west?] |
| 162 | | which one? (.) in the text? |
| 163 | Daniel: | <i>nashi?</i> (mispronunciation of <i>nishi</i> [west]) |
| 164 | Antonio: | I think we have in the text |
| 165 | Mary: | =we have [yeah |
| 166 | Antonio: | [yeah |
| 167 | Daniel: | =yeah (looking at the textbook) |
| ... | | |
| 174 | Daniel: | (showing the textbook) <i>nishi</i> [west] |
| 175 | Mary: | <i>nashi?</i> (mispronunciation of <i>nishi</i> [west]) |
| 176 | Daniel: | no (.) <i>nishi</i> [west] (.) see (showing the textbook)(.) ok? |
| 177 | Mary: | <i>nashi</i> (mispronunciation of <i>nishi</i> [west]) (.) no (.) <i>nishi</i> [west] |
| 178 | Daniel: | <i>nishi</i> [west] (laugh) |
| → 179 | Mary: | <i>nishi</i> [west] (.) west and <i>minami</i> [south] (.) south |
| 180 | Antonio: | what’s <i>nashi?</i> (mispronunciation of <i>nishi</i> [west]) |
| → 181 | Mary: | <i>nishi</i> [west] (.) west (.) |
| 182 | Daniel: | and south? |
| 183 | Mary: | <i>minami</i> [south] |
| → 184 | Daniel: | right (.) and <i>nishi?</i> [west?] (Mary looked at Antonio) |
| 185 | Antonio: | west |
| 186 | Mary: | well done (reading) <i>renshuu</i> [practice] <i>renshuu</i> [practice] |

In lines 160 to 162, Mary has problems with the Japanese words *minami* (south) and *nishi* (west), and her peers, Daniel and Antonio, are unable to help. In other words, they were all novices at this moment. Finding the words in the textbook (line 174), Daniel becomes the expert in comparison with his peers. Then his goal shifts from searching for words to teaching them to his peers. In line 175, Mary is still a novice, however, having checked the textbook and practiced with Daniel (lines 176 to 178), she appears to have learned the words (line 179). However, Antonio still seems to be a novice (line 180). At this point Mary, who used to be a novice, shifts in her role from novice to expert, and focuses on teaching Antonio rather than practicing just for herself (line 181). Daniel (line 182) then checks Mary’s memory of the words, thus testing Mary’s role as expert and possibly showing her still to be a novice. Daniel then tests his peers (line 184), however

this time Mary joins him in the role of expert, looking at Antonio as the only possible novice by this stage. This orientation by Mary is further revealed when she responds to Antonio's answer with the comment "Well done" (line 186). She thus provides an evaluative comment on her peer's utterance just like a teacher, and thereby signals her role as an expert in the moment.

Extract 4 clearly shows how learners' roles are dynamically changing during their interaction, depending on the topic and context, and how their behaviors are then influenced by the role assumed. Previous studies have also pointed out that, due to the different expertise of the learners, their roles are fluid, and more proficient learners can turn into novices in a different situation. The data thus show that the generally more proficient learners also learn through collaborative interaction with peers (Donato 1994; Ohta 1995). Furthermore, as Extract 4 above shows, the fluidity of learners' roles not only comes from their different expertise, but this is also shaped by the relative positioning of themselves in the interaction with their peers.

Even engaging in an unstructured task in which no pre-determined role is assigned – as can also be seen in Rick's case in Extracts 1 and 2 – the learners seem to actively create their roles arising from their relationships with peers or situational factors, and their perceived roles can be seen to affect how they participate in the group work.

4.3 *Negative aspects of peer collaboration in this task*

The previous section shows that opportunities for learning occur in peer interaction in the *kanji* task. In the follow up interviews, the students mostly appreciated the group work in which they could confirm the meaning and reading of *kanji* by combining their individual knowledge with that of their peers. However, some learners evaluated the task negatively. In this section, the negative aspects of this kind of group work drawn from the learners' comments will be considered.

4.3.1 *Individual learners' different pace*

In the *kanji* task, the students shared materials. Some students commented, however, that they preferred to work individually because they could then work at their own pace. An example of non-participation due to a different reading pace was observed in Group 2, particularly between Mary and Antonio.

Mary was applying for an exchange program, and was actively seeking the opportunity to learn Japanese both in and out of the classroom. Her overt participation in the classroom activities was observed throughout the period of the data collection. In the *kanji* learning task, she actively took the initiative throughout the task, for example, selecting the article and highlighting the *kanji*. In addition, she is a Chinese *kanji*-background student from Hong Kong, with good Chinese literacy skills, so that, even though she has been living in Australia for 11 years, Mary has good recognition of many *kanji*. She is thus more knowledgeable about *kanji* than Antonio or Daniel.

In the follow-up interview, Mary commented that her focus in the task was on the reading of the *kanji* as she could guess their meaning, and hence she used a different approach to the others, who needed to recognize the *kanji* before thinking of their meaning. Mary's enthusiasm and advanced knowledge of *kanji* allowed her to take the initiative in tackling the task and hence she kept reading the *kanji* one after the other. When she encountered a familiar *kanji* in the article, she sometimes skipped over it and kept going at her own pace.

Antonio, one of her peers who identified himself as less proficient in Japanese than the others, was unable to keep up with Mary's reading speed and hence he was lost on some occasions. This inability to keep up with his peers was revealed by Antonio asking Mary or Daniel about the place where they were reading from, or what *kanji* they were talking about. However, Antonio's contributions to the discussion were not always acknowledged, or were even ignored by his peers. He became quiet and passive during his engagement in the task. Antonio said in the interview that he preferred to work by himself rather than in a group because Mary did everything and he had not learned anything from the *kanji* task.

However, both at the beginning and later, Antonio was able to participate in the work by re-hearsing the *kanji* reading following Mary, or by asking his peers the meaning of the unknown *kanji*. As well, the data show that although Antonio could not recognize a *kanji* when he saw it for the first time, after asking Mary about its meaning and how to reading it, he was able to read it when he saw the *kanji* the next time. It can, therefore, be said that Antonio learned something from the task done in collaboration with others. Nevertheless, his failure to receive constant help, and his inability to keep up with his peers, caused him to feel dissatisfied with his engagement in the task, and hence, he evaluated the task negatively. This might suggest that while micro analysis of interaction clearly describes the fluidity of the learners' interaction and moment-by moment changes of their roles, their affective stance towards the task, and their overall impression and self evaluation of their roles in peer interaction, remains stay relatively stable.

4.3.2 *Difficulty in problem-solving*

Unlike teacher-centered classroom activity, the learners have more responsibilities for their learning in pair/group work. In learner-learner interaction, where no distinct expert exists as it does in teacher-learner interaction, some students feel frustrated at not being able to solve problems or gain new knowledge. Rick explained his dislike of the task in terms of the difficulty in problem-solving as follows, "Sometimes I feel that we don't necessarily have to work in a pair, for some tasks. For example, like the *kanji* one, if none of us recognizes the *kanji*, that's it. We don't know, and I become really annoyed. We sometimes need correct answers." (Rick 19/9/05)

Rick shows his irritation with pair/group work when they cannot solve their problems. In spite of the fact that there are learning opportunities taking place during the interaction, Rick's comment implies that learners might not evaluate peer interaction positively because collaboration can still leave them lacking a definite answer. Thus, the fluid nature of the learners' roles in interaction might also lead them to feel insecure and unsure about their learning process.

5 Concluding discussion

In this study, the processes of learners engaging in group work and the learning opportunities afforded them by the different roles in their collaborative dialogue have been explored. As much previous research suggests, many benefits of peer interaction were observed occurring in different aspects. Through interaction, the learners assist peers, co-construct knowledge, and solve problems together (e.g. Donato, 1994; Ohta, 2001). As can be seen in Rick's case in Extract 1, more proficient learners not only provide their peers with help when they find them facing problems or making erroneous utterances, but the experts change their assistance when needed, depending on the novice's response. In other words, the learners' assistance is a sequential process, and they adjust their behavior through the interaction with peers.

In addition to learning from peer assistance, it was revealed that a more proficient learner can also benefit from interaction with less proficient peers. This finding is not new: previous studies have already identified learning opportunities for more proficient learners in peer interaction, showing that learners' status over a series of interactions is fluid rather than being fixed as expert and novice (e.g. Donato, 1994; Ohta, 1995, 2001). Ohta (2001) explained the flexibility of the learners' roles in terms of differences in the usage of working memory and selective information by a speaker and a listener. Thus compared with a learner who is in the speaker role, the role of listener enables a learner to do two things: notice errors and anticipate what utterance follows in the interaction. While confirming these findings, this research also identified that the flexibilities of learners' role comes not only from different levels of expertise, or differences of working memory, but also from their relative positioning of themselves in the interaction. As a result, a learner's awareness of being an expert in their group provided opportunities for them to participate in the group work more actively, with the purpose of teaching their peers.

The fluidity of the learners' roles, as well as the sequential process of assisting behavior further suggest that learners carefully monitor their peers' linguistic behavior. In other words, collabora-

tive dialogue seems to be a place where learners identify the nature or source of problems, which is a prerequisite for moving on to collaborative problem solving or knowledge construction. The learners' assisting behavior also provides them with an opportunity to self monitor their knowledge. Therefore, not only novice learners, but more proficient learners can also benefit through the dialogic interaction.

Interesting findings have also been obtained in terms of the impact of learners' language use. The concept of collaborative dialogue was originally developed as an expansion of the role of output. The concept considered that the learners' actual production of utterances in target language serve as raising their awareness about the target language (Swain, 1985, 2000). Although the interaction was not conducted in the target language of Japanese, but was mediated in English for the accomplishment of the task in this study, the learners not only co-constructed knowledge or solved problems, they also utilized the interaction as opportunities to test their hypotheses, or expand their knowledge to wider aspects of the language through peer interaction. In their interaction, English serves the role of a socially constructed cognitive tool. In the field of second language acquisition (SLA), the use of the learners' first language (L1) in language classrooms is a controversial issue (e.g. Anton & Dicamilla, 1999; Cook, 2001; Turnbull, 2001). Though the discussion is contentious and divisive, the present study has demonstrated that the learners' use of English contributes to their knowledge construction, as well as interaction with each other. Thus, the learners' L1 use might be regarded as beneficial as a means to "create a social and cognitive space in which learners are able to provide each other and themselves with help throughout the task" (Anton & Dicamilla, 1999, p. 245). This perspective might modify the widely accepted belief in avoidance of L1 use in language classrooms. More research needs to be conducted to reveal a systematic mechanism and function of L1 in order to address this issue in depth.

It was also observed that the learners appeared to seek and utilize assistance not only from peers, but also from other sources, such as textbooks. It seemed that incorporating such resources into their peer interaction led them to achieve a higher level of learning, which they might not be able to reach if they had relied only on their peers.

The overall picture that emerges from the above findings is that peer interaction provides various opportunities for learners to develop their L2. However, working together does not simply promote L2 learning, as there are also some negative aspects of peer interaction. Previous studies on learner-learner interaction have reported that learners might pick up incorrect information from their peers (e.g. Ohta, 2001). This study revealed that negative aspects of pair/group works were not only observed in the learners' cognitive aspects such as imperfect construction of knowledge, but also in their affective dimension. Even when learning occurred through peer interaction, learners may still evaluate the work negatively because of dissatisfaction with their peers' contribution, or with their own participation in the group work. In addition, lack of access to a definite answer or expert opinion was shown to influence the learners' reluctance to participate in peer interaction.

Nevertheless, the learners in this study received definite benefits from their interaction with peers. From the pedagogical perspective, convincing the students of the benefits of collaboration seems to be important. In particular, for more proficient students who might dislike working with less proficient learners, the teachers could explain to them how they can help the latter. As can be seen in Rick's example, the more proficient learners can also receive benefits through the monitoring of peers and their own linguistic behavior. By so doing, more proficient learners might gain more confidence with their proficiency, and become more responsible not only for their own learning, but also for their peers.

In addition, it is noted that the learners sometimes reached solutions incorrectly, or left problems unsolved. The availability of other resources such as the teacher or textbook seems essential. Thus the teacher needs to be accessible during the task so that they may be asked questions and can give feedback after completion of work. Reminders of what pages in the textbook they might find useful could help learners think to utilize them as tools to mediate their own learning.

Although the findings in this study reveal several complex and dynamic process of learner interaction in the classroom, some issues that warrant further investigation were raised. Firstly, it must

be acknowledged that it was beyond the scope of this study to confirm whether the learners actually developed their language skills through the interaction. Therefore, it would be rewarding to conduct research that investigates the effect of learners' interaction for their L2 learning. As suggested, and as has been conducted by some researchers, the incorporation of post tests might be one of the strategies to check the learners' development of target language skills through peer interaction (e.g. Swain & Lapkin, 2002; Tocalli-Beller & Swain, 2005).

Secondly, the present study focused only on one type of group work and the findings should not be extrapolated to other types of tasks. Peer interaction in different types of task need to be considered. The investigation of such aspects would allow us to explore the process of how learners establish their learning opportunities in interaction with the environment around them.

Despite the above limitations, this study provides a valuable snapshot of learners' actual participation in peer interaction, and indicates that learning in the classroom is a complex and dynamic process. Further studies, which investigate the actual learning process and outcome of the learners' collaboration from a holistic viewpoint, are required for a better understanding of the dynamic processes of learning in the classroom context.

Notes

¹ The author was a postgraduate student at Monash University in Australia at the time of conducting this research.

² The background information of Guy is missing as I could not conduct interview with him.

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Appendix***Transcription conventions***

?	Rising intonation
(.)	Brief pause
(0.0)	Timed pause
(laughing)	Non verbal behavior, or explanation of the situation, or grammatical explanation
{teacher}	English translation
[Indicates overlap with portion in the next turn that is similarly bracketed
[]	English gloss
=	Latching (no pause from previous turn)
°yes°	Whispering
CAPITAL	Emphasis
***	Unclear parts
→	Line to be discussed in the text