『世界の日本語教育』6, 1996年5月

Peer Interaction in an Adult Second-Language Class: An Analysis of Collaboration on a Form-Focused Task

HANEDA Mari*

Key words: **peer interaction, Vygotskian approach to SLA, collaborative L2 learning, adult JFL learners**

The present study was intended further to explore how second language (L2) students interact and collaborate; the framework and methods (e.g., the dictogloss) of Kowal and Swain's (1994) study of French-immersion students were adopted. The focus was on the process and content of peer dialogues, especially on how the students scaffolded one another's learning. There is a quantitative and qualitative examination of recorded data from the peer interactions of eight Japanese-as-a-Foreign-Language (JFL) learners as they worked together in pairs during a single class session to complete a text reconstruction task. The research design and interpretation of the data were carried out within the framework of the earlier study. The comprehensive, qualitative analysis of pair-specific interactional patterns extends the previously cited study. The modes of interaction ranged from those of knowledge transmission to those of varying degrees and ways of collaboration. In the protocol data of one pair, a plausible instance of "collaborative dialogue" (Swain, in press) emerged. The functions outlined in the output hypothesis (Swain, 1985 and 1995) were also observed. The possible reasons why the pairs carried out the dictogloss in distinctly different manners are examined. Although this study is exploratory and further research is needed to confirm the findings, the description and analysis of pair interactional patterns provides classroom practitioners and curriculum planners with insights into one aspect of L2 classroom interaction, the learning process in a collaborative setting.

INTRODUCTION

Current investigation of first- and second-language acquisition research has given

* 羽根田　真理: Department of East Asian Studies, University of Toronto and The Ontario Institute for Studies in Education, Canada.

particular attention to the significance of peer interaction and collaboration. In the first-language (L1) acquisition context, there has been a shift since the early 1960s in conceptualization of how children approach the learning task; language development is interpreted as a social interactive process in which children engage in joint problem-solving (e.g., Forman, Minick, and Stone, 1993; Mercer, 1995; Vygotsky, 1986; Wells, 1986). A Vygotskian socio-cultural perspective has increasingly been accepted. Language is seen as a tool for meaning making (Lemke, 1990; Wells, 1986). Knowledge is considered to be "collaboratively constructed, validated and modified in the purposeful activities" (Wells and Chang-Wells, 1992: 28).

In the second-language acquisition (SLA) research on interaction, however, the focus has not been placed on the content of peer interactions in the classroom.[1] The majority of studies on interaction in L2 classroom looked at specific discourse modifications, such as clarification requests and confirmation checks, and were quantitative in nature; they explored the issue of how input can be made comprehensible through 'negotiation of meaning' (e.g., Long, 1983). Swain and Lapkin (1995a) noted the scarcity of descriptive SLA studies that examined the substance and content of peer dialogues as learners attempt to produce L2.[2]

It is the purpose of this paper to provide a descriptive account of learner-learner interaction in an L2 classroom of adult Japanese-as-a-Foreign-Language learners. The main goal is to examine the nature of their interaction as they work together to complete a collaborative language-production task that was designed to encourage them to focus on the form of the message in a meaningful context. The exploratory study is intended further to investigate the principles and methods of Kowal and Swain's French-immersion study (1994). The focus is on process and content. In respect to outcomes, the design of the study precludes assessment of the relative weights of various causal features that may have contributed.

This paper is organized as follows: first, the theoretical framework for the current JFL study is presented. A description of Kowal and Swain's study and the present study are provided. The interpretation of the present data is carried out according to the framework of Kowal and Swain. The succeeding section presents a qualitative description of pair-specific interactional patterns, to which Kowal and Swain gave less attention. Lastly, suggestions for classroom practice and further research are provided.

Theoretical Framework

The theoretical basis of this study is drawn from three sources: interactionist theory

---

[1] Some documentation of peer interaction in the L2 classroom has been carried out. In the ESL (English as a Second Language) context, see Wong-Filmore's work (1989) regarding young bilingual learners in California. Allen's study (1994) examined how ESL students are getting integrated into the mainstream classrooms in Canada. In the French immersion context, refer to the works by Kowal and Swain (1994 and forthcoming).

[2] Here the second language (L2) is used broadly to include the foreign-language context.

in SLA, Swain's "output hypothesis," and the Vygotskian approach to SLA. A summary of major prior research findings on input, interaction, and output in SLA is provided, followed by a brief explanation of the Vygotskian approach to SLA.

Input, Interaction, and Output in SLA

The issue of optimal input in SLA has been explored in the literature following Krashen's "input hypothesis" (1981, 1982, 1985). Krashen posited that the necessary condition for language learning was exposure to comprehensible input, or "i + 1"; input which is one step beyond the learner's current interlanguage. After him, the role of comprehension in SLA became the predominant focus in the SLA research literature.

As a way to provide sufficient comprehensible input in the L2 classroom, the role of negotiated interaction has been found to be crucial. Hatch (1978a and b) pointed out the importance of interaction in language learning, which prompted a series of studies on that topic. Long (1980) identified "interactional modifications" such as clarification requests, confirmation checks, and comprehension checks in the social discourse of NNS/NS as the pathway to mutual understanding.

Studies investigating the negotiation of meaning under various task conditions have been conducted in the ESL context and have shown that collaborative, two-way tasks produce more negotiation (Long, 1983; Long and Porter, 1985; Doughty and Pica, 1986; Gass and Varonis, 1985; Pica, 1987).[3] This research illustrates that group work, or pair work, as opposed to a traditional "lock step" approach, increases the quantity and variety of practice. More negotiation of meaning occurs among learners in an effort to reach mutual comprehension when they are placed together as information equals. Research also demonstrates that NNS/NNS dyads are as accurate as NNS/NS dyads in oral production. It has also been found that there is more negotiation of meaning when two NNSs interact than when NNS/NS dyads do so (Varonis and Gass, 1985).

While the role of comprehension was of primary importance in SLA research, the role of output has not been entirely overlooked. The practicing function of output was described by McLaughlin, Rossman, and McLeod (1980); it affords the opportunity to practice one's linguistic skills and thus develop automaticity in their use. Schachter (1984) identified the hypothesis-testing mechanism that output may offer.

Swain (1985) pointed out the crucial role of output in L2 development and proposed "the output hypothesis." She asserted that it is possible for learners to understand the meaning of input before producing it at the same morphosyntactic level. Swain argued that acquisition is facilitated when learners are given opportunities to modify their output during interaction with other interlocutors, especially when they are "pushed" to make their output comprehensible. Her hypothesis posits four functions of output: 1) a practicing function (fluency); 2) a "noticing/ triggering" func-

[3] Negotiation here is carried out in the target language.

tion,[4] or a "consciousness-raising" role; 3) a hypothesis-testing function;[5] and 4) a metalinguistic function, or a "reflective" role (Swain, in press).

The Vygotskian Approach to Language Learning and SLA

For L. S. Vygotsky, a Soviet psychologist, higher psychological processes are derived from prior social interaction. Vygotskian theory states that the origin of the ability to engage successfully as an individual in strategic processes (self-regulation) lies in social interaction (Wertsch, 1979). At first, children are not capable of 'self-regulation' in completion of a task and they need to participate in social interaction with adults or capable peers. During such interaction, the metacognition of children is controlled by others — 'other-regulation.' This other-regulation is carried out by semiotic mediation through speech in social interaction.

Vygotsky (1981) described the social origins of individual mental functioning, the "general genetic law of cultural development":

> Any function in the child's cultural development appears twice, or on two planes. First it appears on the social plane, and then on the psychological plane. First, it appears between people as an interpsychological category, and then within the child as an intrapsychological category. . . . It goes without saying that internalization transforms the process itself and changes its structure and function. Social relations or relations among people genetically underlie all higher functions and their relationships. (p. 163)

The transition from inter- to intra-psychological functioning of a child occurs in the zone of proximal development (ZDP), in which a child becomes more independent and self-regulatory. Vygotsky (1978) defined the ZDP as "the difference between the child's actual developmental level as determined by independent problem solving and the higher level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (p. 86).[6]

This dialogic process of learning is applicable to adult-adult interaction in the L2 context as well. Empirical evidence to support the positive learning effects of adult-adult interaction has started to accumulate in the field of SLA (e.g., Al-Jaafreh and Lantolf, 1994; Lantolf and Appel, 1994; Donato, 1994).

---

[4] Schmidt and Frota (1986) suggest a "notice a gap" principle. They argue that "a second language learner will begin to acquire the target like form if and only if it is present in comprehended input and 'noticed' in the normal sense of the word, that is, consciously" (p. 311).

[5] Pica, Holliday, Lewis, and Morgenthaler (1989) provide empirical evidence of this hypothesis testing function. In response to clarification requests and confirmation checks, learners modified one-third of their output, but not all.

[6] Vygotsky (1978: 86–87) further explained the concept of ZPD as follows:
[The ZPD] defines those functions that have not yet matured but are in the process of maturation, functions that will mature tomorrow but are currently in an embryonic state. These functions could be termed the "buds" or "flowers" of development rather than the "fruits" of development. The actual developmental level characterizes mental development retrospectively, while the zone of proximal development characterizes mental development prospectively.

Recently, Swain (in press: 1) proposed a new frame of reference for SLA theory; her "collaborative dialogue" is a more direct source of learners' cognitive process. She defines "collaborative dialogue"[7] as "the joint construction of language by two or more individuals; it's what allows performance to outstrip competence; it's where language use and language learning can co-occur." Incorporating a Vygotskian perspective into SLA, she states:

> If one accepts a Vygotskian perspective that much learning is an activity that occurs in and through dialogues — that development occurs first on the interpsychological plane through socially constructing knowledge and processes — then it must be that a close examination of dialogue as learners engage in problem-solving activity is directly revealing of mental processes. (pp. 29–30)

Swain suggests that a more profitable unit of analysis in SLA may be such dialogue in addition to separate consideration of input and output. She also describes the nature of a task requiring collaborative dialogue as a communicative, problem-solving task that pushes learners to negotiate the form, function, and meaning of a grammatical rule through social interaction with peers. Negotiation in this sense goes beyond the realm of what is considered as "negotiation" in interactionist theory, where comprehensibility of the message is the crucial factor (Pica, 1994).

Kowal and Swain's Study

Kowal and Swain (1994) investigated the role of collaboration and dialogue in a recent study carried out in a French immersion class. Nineteen students from a grade-8 immersion class participated in the study.[8] All but one student had participated in an early immersion program since kindergarten.[9]

The investigation addressed the following issues: 1) early immersion students' grasp of French grammar; 2) the feasibility of form-focused task in a meaningful context that is carried out in peer collaboration; 3) the way the students relate to one another during completion of task and its relationship to the quality of interaction; and 4) corrective feedback during peer interaction.

As a way to promote student's grammatical awareness, the dictogloss, a collaborative language-production task, was chosen as a research task.[10] It is a procedure that

---

[7] Swain (in press: 24) argues that there are at least two types of collaborative dialogues: 1) one "where learners extend each other's language perse," and 2) one where learners talk about language, thus "extending each other's knowledge about the target language." In other words, in the first type, language is co-constructed, and in the second, knowledge about language is co-constructed.

[8] For detailed discussion of French immersion programs, see Swain and Lapkin (1982).

[9] These students experienced classes that "reflect a provincially recommended learner-centered philosophy of education" and they were instructed entirely in French up to Grade 3 and instruction in English was introduced in later grades (Kowal and Swain, 1994: 5).

[10] Swain and Lapkin (1995a) call this type of communicative task a 'negotiation of form' task, as it encourages students to focus on grammar.

encourages learners to reflect on their output in the context of peer collaboration, as opposed to the traditional dictation exercise, which is done individually. The peer interactions involving the dictogloss dealing with the environment were audio-taped and transcribed, as was a subsequent teacher-fronted whole-class discussion. The students, in self-selected pairs, reconstructed the passage for 20 minutes and were given 10 minutes to write their reconstructed sentences. During the sentence reconstruction, they were allowed to consult with the teacher and reference books.[11]

From all of the transcribed data, critical language-related episodes (CLRE)[12] were identified and classified into three categories: 1) meaning-based episodes (in which the focus of discussion was language or the meaning); 2) grammatical episodes; and 3) orthographic episodes (in which the focus of discussion was either grammatical or orthographic accuracy).

Within the peer-interaction data, a total of 224 critical episodes were identified within the data from peer interaction. The proportion of the episodes with a focus on accuracy was 70%; 42% of the 70% were grammatical episodes. The dictogloss procedure was found to be successful in encouraging the students to pay attention to "accuracy and form/function links," but "the specific goals of the activity were redefined by the students" (Kowal and Swain, 1994: 15).[13] The data showed evidence of output functions outlined in Swain's output hypothesis: the students 'noticed a gap' in their linguistic knowledge, became conscious of it through the verbal interaction, and tested hypotheses in dealing with the linguistic problems. The data also indicated that the students created new forms, as well as refined and consolidated existing knowledge (Swain and Lapkin, 1995b). Groupings which were not highly heterogeneous led to more productive discussion for all students.

Research Questions and Methodology

Kowal and Swain's study found that the dictogloss was highly successful in promoting the students' language awareness in a meaningful context. If the same study were conducted in a different L2-instructional context, would their findings hold true? In particular, how do pre-intermediate adult learners of Japanese as a Foreign Language (JFL) in a university setting relate to one another while engaging in a highly collaborative task such as dictogloss? What do they talk about? Specific research questions addressed in the present study are as follows:

1. Do university JFL learners discuss language form and meaning in a similar manner and to the same extent that Grade-8 French immersion students were found to do in Kowal and Swain's (1994) research? If not, how are they different

[11] The teacher did not provide the correct answer when asked. Instead, she provided hints that she thought might be sufficient to help the students to work out the solutions on their own.

[12] Their critical language-related episodes were based on the studies by Samuda and Rounds (1993) and Swain and Lapkin (1995b).

[13] Kowal and Swain found that the students talked about the verb endings (one of the target grammar points) less than 20% of the time within grammatical episodes.

and what are some of the possible reasons for any differences?

2. Does peer interaction provide opportunities for accurate feedback about linguistic questions that arise during the task completion or does it lead to misunderstandings about them? How is the feedback given?
3. What are the identifiable patterns and pair-specific characteristics of peer interaction? Are there any instances of "collaborative dialogue" (in press)? If so, what are the possible interactional factors that might lead to it.

Instructional Setting

The eight participants in this research were university students who had just completed the second-year Japanese course with the researcher in the spring of 1995. They finished studying beginning Japanese grammar and were at the level of pre-intermediate language proficiency.[14] A study group was formed to continue Japanese-language instruction with the researcher during summer months. Their voluntary participation in study sessions was indicative of their high motivation to learn Japanese.

The study session was set for one-and-a-half hours per week. The unifying theme of these sessions was a Canadian student's experience of living in Japan; each session focused on a specific aspect of Japanese life (e.g., finding accommodations). Each session centered on a few pedagogical tasks.

The researcher had previously taught six of these students for two academic years and the remaining two for one year. Although the main textbooks for elementary Japanese courses are based on a structural syllabus, she frequently incorporated communicative tasks. Therefore, these students were presumably quite used to communicative, collaborative activities when the current study was conducted.

The Students

The language backgrounds of the eight participants are varied. Table 1 gives their linguistic profiles. It is worthy of note that for half of them, Japanese is their L3 and for the remaining four, it is their L4. Their first languages were Chinese (4), English (2), Persian (1), Hebrew (1), and English and Chinese (1).[15]

The students came from two separate tutorials, and hence they were not necessarily familiar with one another.[16] As the researcher wanted to simulate the natural

---

[14] According to the data analysis conducted at the School of Language Studies of the Foreign Service Institute, Japanese is classified as a group IV language, which takes native speakers of English the greatest amount of time to learn (Likin-Gasparro, 1982, cited in Omaggio, 1986). In the majority of North American universities, elementary Japanese is taught over two academic years.

[15] As was the case with Kowal and Swain, the students' proficiency levels were rated based on their performance from the previous year(s): high, upper-middle, lower-middle, and low.

[16] These students studied Japanese 5 hours per week during the 1994–95 school year at the University of Toronto. Two hours were allocated to grammar explanation in a large class and three hours were allocated to practicing language use in small tutorial classrooms. For these tutorial sessions, the students were divided into smaller groups of around 20.

Table 1 Linguistic Profiles of the Participants

Student Name (pseudonymous)	L1	L2	L3	L4
Alan Pair 1	English and Chinese (*Fukien*)	Chinese (Mandarin)	*Japanese upper-middle**	
Gila Pair 1	Hebrew	English	*Japanese High*	
Kim Pair 2	English	French	German	*Japanese High*
Jill Pair 2	Chinese (Mandarin)	English	*Japanese upper-middle*	French
Simon Pair 3	Persian	English	Spanish	*Japanese upper-middle*
Cindy Pair 3	Chinese (Cantonese)	English	French	*Japanese upper-middle*
Luke Pair 4	Chinese (Cantonese)	English	French	*Japanese upper-middle*
Jane Pair 4	Chinese (Cantonese)	English	*Japanese High*	

*The participants' proficiency levels in Japanese.

classroom setting as opposed to an experimental setting, she permitted students to select their own partners. As expected, students simply selected whoever was sitting beside them as they would during a regular classroom session. Three heterogeneous pairs and one homogeneous pair (with respect to their L1) were formed. The pairing information is also provided in Table 1.

Task Design

The dictogloss (Wajnryb, 1990) was designed as in Kowal and Swain. The content of the dictogloss concerned the process of renting accommodations in Japan, in accordance with the theme of the study session. The original dictogloss text and its translation are provided below.[17]

Dictogloss

1. *Nihon de apaato o kariru no wa kanada yori zutto okane ga irimasu.*
   (In Japan, renting an apartment costs a lot more money than in Canada.)
2. *Nihon no daigaku ni wa ryoo ga amari nai node, daigakusei wa geshuku ni sundari, apaato o karitari suru koto ga ooi to kikimashita.*
   (I heard that because there are not many dormitories at Japanese universities, university students oftentimes either live in a boarding house or rent an

[17] The target grammar points were as follows: 1) obligation expression, *-nakereba naranai/ikenai*; 2) nominalization, 'verb + *koto*/verb + *no*'; 3) practice with the use of particles. The third, fourth, and fifth sentences were devised to provide some practice for compound-sentence structure.

apartment.)

3. *Nihon wa bukka ga takai node, yachin mo kanada yori takaku narimasu.*
(As the cost of living in Japan is higher, inevitably the rent becomes more expensive than in Canada.)
4. *Sore ni nihon ni wa reikin to iu shuukan ga atte, apaato o kariru toki, ikkagetsu bun no yachin o ooyasan ni harawanakereba narimasen.*
(On top of that, there is a custom called 'courtesy money.' You must pay one-month's rent to your landlord as courtesy money.)
5. *Desu kara, nihon de wa apaato o kariru toki ni wa, reikin, shikikin, ikkagetsu bun no yachin o zenbu harawanakereba ikenai node, totemo takaku natte shimaimasu.*
(As a result, in Japan, when you rent an apartment, since you have to pay the courtesy money, deposit, and the first month's rent all at once, unfortunately, it becomes very expensive.)

Data Collection and Analysis

The data collection was conducted in the fourth study session as part of the classroom activity. Modifying the dictogloss procedure, a short, dense text (above) was read to the students three times, at normal speed.[18] The students, in self-selected pairs, jotted down familiar words and phrases, and proceeded to reconstruct the original text. The students were instructed to reconstruct and write down the passage as accurately as possible, both with respect to meaning and to grammar. They were given 25 minutes to complete the task.

The entire interaction was audio-taped, and the written products were also submitted. The audio-taped data of all four pairs were transcribed. For the purpose of coding the protocol data, 'language related episodes' were adopted as the unit of analysis, defined in Swain and Lapkin (1995b: 13) as follows:

> [Language related episodes are] any segment of the protocol in which a learner either spoke about a language problem he/she encountered while writing and solved it either correctly or incorrectly; or simply solved it (again, either correctly or incorrectly) without having explicitly identified it as a problem.

After language-related episodes were identified, they were classified into meaning-based, grammatical, and orthographic episodes following Kowal and Swain's categories. There were instances where one episode was embedded within another as noted in Kowal and Swain. Some representative examples of language related episodes are provided below:[19]

---

[18] In the pilot study, it was found that reading the text twice did not give the students enough time to write sufficient notes.

[19] All utterances in Japanese are represented phonemically and italicized. The mark 'xxx' indicates a word or phrase that the researcher could not understand when she transcribed it. ( ) indicates any editorial comments added by the researcher.

Meaning-based Episode

(Alan and Gila try to figure out the meaning of the word *geshuku*, "a boarding house")

055 Alan: Yeah, *keshuku.*
056 Gila: *Daigakusei wa . . .*
057 Alan: *Daigakusei wa,* uhh, *apaato to keshuku . . .*
058 Gila: *Keshi, keshu,* what was *keshu . . .*
059 Alan: *Keshuku,* heavy, hmmm, it's a tradition.
060 Gila: No, it was *shuukan.* What was *keshuku*?
061 Alan: Like a boarding house?
062 Gila: Yeah, right, right. *Hai. Hai.*

Grammatical Episode

065 Cindy: *Okane ga irimasu,* what's *irimasu*?
066 Simon: *Irimasu,* to need, *ireru, iri, irimasu,* Yeah, 'is needed.'
067 Cindy: What's the dictionary form?
068 Simon: *Iru, iru.*
069 Cindy: Okay.
070 Simon: *Iru, soo desu.*

Embedded Episode

165 Alan: *Ikkagetsu . . .*
166 Gila: *Ikkagetsu me*? *Ikkagetsu me no*
167 Alan: *Me to.* No, *ikkagetsu no yachin*? I think it's *yachin.*
168 Gila: *Yachin*?
169 Alan: Yeah, one-month's rent.
170 Gila: *Ikkagetsu no yachin.* Ehh, *ikkagetsu me no yachin,* Uhhh . . .

Orthographic Episode

010 Gila: *Nihon de apaato o kariru,* how do you write *kariru,* I forgot the kanji. Anyhow, *kariru.*
011 Alan: *Kariru*?
012 Gila: Yeah, we learned *kariru* ××× I forgot it.
013 Alan: You mean, the kanji?
014 Gila: Uh-huh. Anyhow, it's okay.
015 Alan: Hmmm.

After classification of meaning-based, grammatical, and orthographic episodes were completed, the nature of each episode was described, which led into data-generated categorizations within these three type of episodes as was attempted in Kowal and Swain (1994).

The Qualitative Analysis: Results and Discussion

All together, 37 language-related episodes were identified in this study. In Kowal

Table 2 Sample Data

	Number of Turns	Number of Language-related Episodes
Pair 1: Alan and Gila	188	16
Pair 2: Kim and Jill	110	8
Pair 3: Simon and Cindy	179	10
Pair 4: Luke and Jane	48	3

Table 3 Data-generated Descriptive Categories of Language-related Episodes

Meaning-based Episodes		Grammatical Episodes		Orthographic Episodes	
Checking the meaning of a word or phrase	6	Particles	7	Kanji	6
Reconstructing the meaning of the original sentence in own words	1	Verbs	7	Modified kana	1
Talking about a lexical choice	1	Phrase*	5		
		Relative clause	1		
		Adverb	1		
		Nominalizer	1		
Total	8	Total	22	Total	7
Percentage of total episodes	22%		59%		19%

* Note: In Japanese pedagogical grammar, an expression such as *nakereba naranai/ikenai* is classified as "phrase" (Makino and Tsutsui, 1990).

and Swain, with 19 students participating in their study, 224 critical language-related episodes were identified. Despite a smaller sample consisting of 8 students, the number of identified language related episodes in the current study was significantly smaller in comparison to those found by Kowal and Swain. The present data are summarized in Table 2.[20] The data-generated descriptive categories of language-related episodes are provided in Table 3.

With Grade-8 French immersion students, the proportions of meaning-based, grammatical, and orthographic episodes were 31%, 42%, and 28%, respectively. With adult JFL learners, the proportions were 22%, 59%, and 19%. It was found that these adult students talked about language form in higher proportion than originally cited in Kowal and Swain (1994). Adult JFL learners behaved similarly in response to the task demands; however, the data-generated descriptive categories reveal that the nature of the meaning-based episodes was different from those in the previously

[20] The definition of "turn" in Chaudron (1988: 45) was adopted: "Any speaker's sequence of utterances bounded by another speaker's speech."

cited study. The Grade-8 immersion students were found to be "reconstructing the meaning of the original sentence in their own words" most often (45 episodes out of total of 69 episodes); whereas, adult JFL learners reconstructed the text without restating sentences in their own words. The present study found that the most frequent kind of interaction within the meaning-based episode type was 'checking the meaning of a word or phrase.'

As far as the grammatical and orthographic categories are concerned, the problematic features specific to the Japanese language were reflected in the nature of the episodes. In the grammatical episodes, particles, verbs, and phrases topped the list, and in the orthographic episodes, kanji (Chinese characters) was the main focus.

In the current study, students resolved problems correctly. Out of 37 language-related episodes, 28 were correctly resolved. Although this equals 75%, it still leaves 25% wrong; hence, there is a need for teacher intervention. Out of 9 unsuccessful episodes, four were of an orthographic nature, reflecting the orthographic challenge that the Japanese language poses for learners.

Discussion

With respect to the first research question, the findings of this study indicate that these pre-intermediate, university JFL learners discussed language form in a similar manner, but to a greater extent, than was found with Kowal and Swain's immersion students. In addition, unlike immersion students, these adult JFL learners did not attempt to restate the passage in their own words. Several possible reasons for these differences can be speculatively proposed.

First, the issue of language proficiency and task complexity should be considered. It is feasible to think that the students did not have enough linguistic resources to engage in text reconstruction creatively. It is also possible that the original text of the dictogloss was not challenging enough in terms of syntactic complexity to encourage much discussion.

The second issue to be pointed out is task interpretation. Depending on the age group and the learning environment, the task can be interpreted differently. Four students are of Asian background, and may have considered the dictogloss as text rendition. The cultural background of the students may have had some effects on the task interpretation.

"Interlocutor familiarity" (Plough and Gass, 1993) may have contributed to the less frequent instances of language-related episodes among these JFL learners. Because some of them were not necessarily familiar with each other, it might have prevented them from active involvement in verbal interaction. It is also possible to speculate on a lack of procedural knowledge: the students did not know how to help each other while carrying out an L2 communicative task.

The differences of instructional settings should be taken into consideration. These JFL students are taught in the context of foreign-language curriculum, whereas immersion students are learning French in the content-based curriculum. This may have had some effects on differences in the findings.

Regarding the second research question, the current study found that in most

cases, pre-intermediate adult JFL learners accurately resolved the linguistic problems either implicitly or explicitly despite their limited level of language proficiency in Japanese.

Qualitative Description of Student Interaction

A description of pair-specific interactional patterns is provided in this section, followed by a discussion regarding possible factors that may have contributed to different patterns. In this section, the issues such as functions of output and "collaborative dialogue" are addressed as well.

It is necessary to present some of the interactional data that were not extracted as language-related episodes in order to describe adequately the interactional patterns of some pairs. Thus, a new unit of analysis was generated to account for these data. In this way, the old data were combined with the new. In addition, three students were interviewed regarding their dictogloss experience to aid the interpretation of these data.[21]

Some of the examples provided in this section are classified as "interaction." Episodes related to reconstruction of the passage that do not fall under language-related episodes are included. When the focus is on one linguistic item, it constitutes one episode.

Identified Modes of Interaction

When the student dialogues were submitted to a close examination, various discourse patterns were identified. It proved possible to label these and to arrange them on a scale of collaborative discourse, ranging from "knowledge transmission" at one end of the scale, to "learning from each other" at the more interactive end. The following pair description begins with these extreme cases.

1. Luke and Jane
"Knowledge Transmission: Let's Get the Work Done"

Luke and Jane's interaction is characterized by one person doing most of the work, providing most of the answers without much discussion or collaboration. In comparison with Alan and Gila's taking 44 turns to discuss the first sentence to their satisfaction, Luke and Jane quickly finish reconstructing the same sentence in 5 turns:

001 Jane: *Nihon de apaato o kariru nowa kanada yori zutto okane ga irimasu. Okane ga irimasu?*
002 Luke: Uhuh.
003 Jane: Is that okay?
004 Luke: I think so.
005 Jane: *Zutto kariru nowa, kariru yori zutto,* okay. (She proceeds to finish writing without verbalizing what she is writing down.)

[21] Alan, Jane, and Luke were interviewed.

Similarly the last sentence was reconstructed within 6 turns while Alan and Gila deal with the same sentence in small chunks and 41 turns. Jane provides the information and asks Luke to affirm that it is correct, which in turn he does.

043 Jane: *Desu kara nihon de apaato o kariru toki*, uh, *reikin*, *shikikin*, **ikkagetsu*[22] *yachin o zenbu *kakaru node totemo takaku natte shimaimashita. Ah, shimaimasu?*
044 Luke: *Shimaimasu.*
045 Jane: *Totemo takaku natte shimaimasu.* It's unfortunately, (that) it becomes so expensive or something? *Shimaimasu?* Does it mean unfortunately?
046 Luke: Yeah.
047 Jane: Okay. Is that okay?
048 Luke: Okay. I think we're done.

The new expression introduced was *ikkagetsu bun no yachin*, one month's rent. Jane's grammatical error in her answer goes unnoticed in this interaction. *Kakaru* is a lexical error (wrong lexical choice) and the key grammatical structure "*nakereba ikenai/naranai*" in the target sentence is not even discussed. The details of the original passage are not given much attention within these exchanges.

2. *Alan and Gila Learning from Each Other*

Alan and Gila's interactional pattern is in sharp contrast to that of Luke and Jane's. Alan and Gila collaborated throughout the process of passage reconstruction, contributing equally to the task completion. For these two, Japanese is their L3. Gila's L1 and L2 are Hebrew and English respectively, while Alan's L1 and L2 are English and Chinese. Having spent one year in Japan, Gila is the most proficient speaker of Japanese among the participants, but she has been struggling with kanji. Alan has developed strategic competence (Canale and Swain, 1980) after spending a few months in Japan, but he is weaker in grammatical competence. Having Chinese as his first language, his understanding of Japanese orthography is better than Gila's.[23] In their interaction, it was noted that they utilized their individual strengths to their mutual benefit. The following orthographic episodes illustrate this point. Alan assumes the role of teacher when it comes to kanji:

2-1. Episode 7

110 Gila: Okay, so, *yachin*, how do you write *yachin*, *ya* is house.
111 Alan: *Ya* is . . .
112 Gila: House.
113 Alan: Yeah. *Chin* is the *dai* and a *miru*. *Dai* is *heyadai* and below is *miru*.[24] Yeah.

[22] Here, the asterisks indicate errors.

[23] Alan was raised bilingually at home, having communicated with his father in English and with his mother in Fukien, a Chinese dialect. Alan chose Mandarin as his L2 and developed his Chinese literacy skills at school; he studied Mandarin for 12 years.

[24] Alan's orthographic instruction is not entirely accurate here.

Gila has strong grammatical competence and always pays attention to details. This pair seems to draw on her strengths as well. Episode 8 demonstrates an example of what Swain (in press) termed "collaborative dialogue":[25]

2-2. Episode 8

021 Alan: *Irimasen.*
022 Gila: *Okane.* You have to put money. *Okane.*
023 Alan: *Okane o.*
024 Gila: *Okane ga.*
025 Alan: *Okane ga.*
026 Gila: *Irimasu.*
027 Alan: *Irimasu.*
028 Gila: Uh-huh.
029 Alan: Actually, it's *o*. Right? Is it *ni, ga?*
030 Gila: Uh-huh.
031 Alan: To put something ××× supposed to be *o*.
032 Gila: *Okane, okane ga, okane o? Okane . . .*
033 Alan: *Ga . . .* something.
034 Gila: If it's you ××× put, it's *okane o*, maybe the money has to be put in. *Okane ga irimasu.* I'm not sure if it's *okane ga* or *okane o*. I think it depends on who does the putting.
035 Alan: Because . . . what's *irimasu* like? It depends on if irimasu is an action that you have to do. Like *nani o tabemasuka. Iru* can who is ××× doing an action . . . but it is an action that has to be done by ×××. It's hard to say . . .
036 Gila: No, no. I understand. But if the money is to put in . . .
037 Alan: See, to put money is an action . . .
038 Gila: *Nani nani o*, yeah, you're right. But if it's from the point of view of the money.
039 Alan: Oh, of the money. Yes (with a laugh).
040 Gila: The money is put in.
041 Alan: Yeah, it means *ga, ga.*
042 Gila: Yeah, I'm not too sure. But I am hearing *ga*, but I'm not too sure.
043 Alan: Yeah, *ga irimasu.*

The whole episode is centered on one phrase, *okane ga irimasu*: The money is needed or one needs the money. The verb *iru* is an intransitive verb in Japanese, whereas in English the verb 'to need' is a transitive verb just like the verb 'to eat,' as Alan argues at turn 35. In the case of a transitive verb in Japanese, it should be marked by the object-marking particle, *o*, while if it is an intransitive verb, it should be marked by the subject-marking particle, *ga*. This grammar point was introduced in the first term of the first-year Japanese course and was not one of the target

[25] This next episode is representative of one type of "collaborative dialogue" where co-construction of linguistic knowledge occurs.

grammar points in this dictogloss. However, for Alan, this grammar point still remains problematic and needs resolution. In other words, Alan is setting up his own agenda. This dictogloss provided an opportunity for him to notice a gap in his linguistic knowlege.

Alan is also observed to hypothesize about the use of verbs in Japanese (turns 035 and 037). Gila listens to Alan's hypothesis carefully and gives him credit for it; she is very responsive. Alan is encouraged to proceed with his hypothesis. Although Gila's understanding of the word *iru* as 'to put in' is not entirely accurate, she explains the concept of intransivity in commonsense terms and without using a complex metalanguage. At 038, she explains it from the point of view of the money and Alan comprehends the concept (turns 039, 041, and 043), probably for the first time. Where the teacher's meta-explanation and a series of classroom exercises failed, Alan filled the gap in his grammatical knowledge with the help of his classmate in the context of peer collaboration. Three functions outlined in Swain's hypothesis (1985 and in press) were in operation: a gap in linguistic knowledge was noticed, and in order to solve this problem, Alan and Gila went through the process of hypothesis generation and testing as well as reflection on it.

Gila is seen here to provide a "scaffold" for Alan, enabling him to go beyond his current interlanguage. Donato (1994: 4) explains the mechanism of scaffolding as follows:

> This concept, which derives from cognitive psychology and L1 research, states that in social interaction a knowledgeable participant can create, by means of speech, supportive conditions in which the novice can participate in, and extend, current skills and knowledge to higher levels of competence.

In the present study, "scaffolding" is intended to include cognitively supportive interactions among learners at all levels. Seen from this perspective, this is also illustrative of the co-construction of knowledge (Wells and Chang-Wells, 1992).

3. Intermediate Discourse Type, Illustrated by Simon and Cindy's Interaction

This pair took turns equally and collaborated throughout task completions but not to the same degree that we have seen in Alan and Gila. This pair used a strategy of recounting everything in English first and proceeding to do a text reconstruction. They did encounter problems, some of which were successfully solved. However, there were instances when the joint construction of knowledge could have been pursued, but was not attempted. The example below is a case in point.

3-1. Episode 9

160 Simon: *Harawanakereba.*
161 Cindy: No, no, no, no! Before *harawanakereba* is *zenbu.*
162 Simon: Oh, okay . . .
163 Cindy: *Zenbu o harawanai node*, because . . .
164 Simon: *Harawanakereba* . . .
165 Cindy: No, no, no, no!

166 Simon: *Harawanai node?*
167 Cindy: Before *node* is a plain form.
168 Simon: *Harawanai node . . .*

The original sentence was '*harawanakereba naranai node*' (because one has to pay). At turn 164, Simon offers the correct version, but at turm 165, Cindy emphatically rejects Simon's suggestion. Instead of pursuing his original accurate rendition, Simon switches to a wrong form. At turn 166, he says *harawanai node*, which means 'because one does not pay.' Cindy's explanation is accurate at turn 167 with regard to the use of the connective conjunctive, *node*, but fails to capture the meaning of the whole phrase. Unlike Gila, who tries to inquire together with her partner, Cindy does not respond to Simon's suggestion, missing an opportunity to engage in a joint linguistic inquiry.[26]

4. *Another Intermediate Discourse Type: Amicable Collaboration Illustrated by Kim and Jill*

In comparison with Simon and Cindy, where Cindy seems to have the last say, the task completion in the present example is equally shared by both parties. Oftentimes Kim and Jill came up with the answer in unison without encountering many problems. Their exchange is characterized by repeating behavior; they each produce a portion of the passage and they confirm their knowledge by parroting it. Here are the typical examples from their exchange.

025 Kim: Ah, so *amari nainode daigakusei wa, amari nainode daigakusei wa.*
026 Jill: Uhuh
027 Kim: Okay, *nihon wa bukka ga takai node yachin mo.*
028 Jill: *Yachin mo.*
029 K and J: *Yachin mo.*
030 Kim: *Kanada.*
031 Jill: *Yachin mo kanada yori.*
032 K and J: *Takaku narimasu.*
033 Kim: Okay.

Episode 10
079 Jill: *Harawa ikenai node.*
080 Kim: *Harawanakereba* (implicit corrective feedback).
081 Jill: *Harawanakereba*, yeah, you got the part (laughter).
082 Kim: *Harawanakereba.*

In dealing with the reconstruction of the last sentence, Kim and Jill give up quite easily, whereas Alan and Gila persisted a bit more. The following examples show

[26] It is plausible to hypothesize that if some training sessions had been provided for these students (i.e., training sessions based on peer modeling), they might have interacted more collaboratively. However, the purpose of this study was to describe typical classroom interaction in pairs without any intervention.

how these two pairs processed the same information. Although the final written product indicates that neither pair correctly reconstructed the phrase, *harawanakereba naranai node* (because one has to pay), the process of reconstruction is quite different.

Episode 11

102 Kim: That sounds right. *Harawanakereba totemo*, is that right? The form of the verb? (Jill is laughing in the background) I shoudn't be so worried about it. (Kim laughs as well) *Zenbu harawanakereba.*

103 Jill: *Ba.*

104 Kim: *Zenbu harawanakereba totemo.*

105 Jill: So, where, where does *narimasen* go?

106 Kim: *Harawanakereba naranai.* We don't have to say it, maybe. *Harawanakereba.*

107 Jill: Can you just skip to another line?

108 Kim: Sure. I think it's good enough.

Here in the peer interaction, some questions (turns 102 and 107) are posed, but not fully explored. In contrast, Alan and Gila tried to make sense of the phrase in three steps; the following two episodes represent the first two steps they took.

Episode 12

171 Alan: You must pay. You have to pay. *Harawasenai.*

172 Gila: *Harawa, harawa nakereba naranai? Hara.*

173 Alan: *Narakutewa.*

174 Gila: *Nakutewa, narereba*, it's the same thing. *Narebeba na, na, naranai? Totemo ikemasen?*

Episode 13

175 Alan: *Totemo takaku naku.*

176 Gila: But it was before *totemo ikemasen?* I cannot do it.

177 Alan: *Totemo ikemasen*, oh, I don't think ×××.

178 Gila: There was something with *totemo ikemasen.*

179 Alan: *Totemo ikemasen* . . . (laughter).

180 Gila: Yeah, *totemo ikemasen.*

In contrast to Kim and Jill's efforts only to reproduce what they heard, Alan and Gila tried to utilize their existing linguistic knowledge by examining related expressions. The Japanese expression of obligation, 'must' or 'have to,' can take several forms, some of which were introduced during the previous term. At turns 173 and 174, Alan and Gila are seen to be speculating on synonymous expressions. At 174, Gila tries to make sense of what she thought she had heard. The prohibition expression, "～ *tewa ikemasen* (must not)," was introduced around the same time when these obligation expressions were introduced in class. Due to the similarity of the forms, students often confuse these two. Gila's efforts to understand indicate that this grammar point was partially retained, but not yet fully acquired. However, her efforts can be interpreted as an attempt to "reprocess" her own linguistic resources

to consolidate existing knowledge (Swain and Lapkin, 1995b). The output led her to reprocess her linguistic knowledge. The final written product indicates that Kim and Jill's work contained more errors than Alan and Gila's, suggesting the importance of such reprocessing.

Variables in Pair Interaction: Interpersonal Factors

What are the possible reasons why the pairs carried out the task in such different manners? A close examination of two extreme cases (Luke and Jane/Alan and Gila) is called for. It is worthy of note that both Luke and Jane are very enthusiastic students who share common traits. During the past two years, both of them were observed to ask many questions in class and to interact frequently with other classmates. Yet they only exchanged 48 turns in this study. In order to understand the reason for this, Luke and Jane were interviewed. They said that it was their first time working together, and that they were, consequently, not familiar with one another. Each of them said that they did not know what to expect from the other. Even for the students as interactive as Luke and Jane, "interlocutor familiarity" was at issue (Plough and Gass, 1993).

Why then Alan and Gila were capable of learning from each other? Possibly Gila's high language proficiency helped to a certain extent. The fact that they complemented each other in terms of individual linguistic strengths and weaknesses may be another factor. However, there seem to be other factors at work as well. Throughout the task completion, both Gila and Alan remained very interactive, that is, responsive to each other's questions at every turn. Alan was paired with Simon in the pilot study, and talked very little. As it was such a sharp contrast to his interaction with Gila, the researcher proceeded to interview him regarding why he talked more with Gila. According to Alan, Simon is very quiet while Gila is very interactive, and he felt that she was listening to what he had to say. Alan pointed out that Gila's Japanese is not only better than his, but she gave him feedback on grammar. He further noted that he learned how to negotiate the linguistic information by interacting with Gila.

Limitations of the Research

Although useful results were obtained, the research reported here was exploratory in nature and therefore had certain limitations. The present participants were highly motivated learners and their interactional data do not constitute representative samples of university JFL learners; the present data do not allow generalization to the collaborative processes of JFL students. It should also be noted that the researcher interpreted the protocol data alone. Given the nature of the research design, it cannot be established what parts of the intervention produced the results (i.e., the dictogloss or collaboration). In addition, it should be pointed out that there is no attempt in this study to establish a connection between interaction variables and learning outcomes.

Classroom Implications

As this was an exploratory study with a small data base, the findings are not definitive and need to be backed up by further research. However, the present interactional data of JFL learners, as interpreted, suggest several pedagogical recommendations that may be helpful for classroom practice.

Although the students were able to give each other accurate feedback in most cases, the presence of errors in the final product and the fact that there were a number of episodes in which the participants failed to arrive at a successful solution indicate the need for teacher intervention in the form of feedback regarding students' unsolved questions or errors they were not even aware of; appropriate assistance by the teachers is still necessary to fill in the gaps in the students' linguistic knowledge.

Classroom practitioners should also be aware of the fact that the task may be interpreted differently by the L2 learners, depending on the students' age or learning situations. Luke and Jane's comments also reveal that task-based learning situations may be successful when learners feel comfortable enough with each other to interact successfully. In practice, gradually introducing learners to this type of learning environment would be desirable. In order to capitalize on the various strengths of the students, a variety of task types and conditions should be incorporated into classroom practice.

As a way to introduce learners to task-based learning, a communicative task such as dictogloss may be appropriate. Adult learners would be able not only to focus on language, particularly language form, but would also be able to come to terms with the demands of collaborative L2 learning with relative ease, due to the structured nature of the dictogloss procedure.

In spite of the many challenges posed by SLA research, there is no doubt that the current emphasis on collaborative discourse provides classroom practitioners and curriculum planners with important insights into the nature of L2 classroom interaction.

Suggestions for Further Research

Peer collaboration seems to have good potential for enhanced L2 learning. The challenge for SLA researchers is to empirically demonstrate the connection between peer collaboration and L2 learning. The effects of various task types[27] and task conditions, and teacher facilitation on learner–learner interaction should be explored in order to examine what factors affect L2 collaborative learning. The interpersonal aspects of interaction require further research as well.

Furthermore, when one adopts the Vygotskian approach to SLA, reconceptualization of L2 learning outcomes becomes necessary. The traditional measurement of L2 learning outcomes by uniform, discrete tests cannot capture what an individual

[27] For example, "negotiation of meaning" and "negotiation of form" tasks (Swain and Lapkin, 1995a).

student learns through peer collaboration; tests based on peer interaction may be one of the ways to measure the learning outcome that actually occurred during the interaction. Other possible ways to measure L2 learning may be investigated.

ACKNOWLEDGMENT

I would like to thank the following people for providing me with valuable feedback on earlier drafts of this paper.: Drs. Patrick Allen, Sharon Lapkin, and Merrill Swain and Ms. Sufumi So at the Ontario Institute for Studies in Education (Modern Language Center).

BIBLIOGRAPHY

Al-Jaafreh, A. and J. P. Lantolf. 1994. Negative feedback as regulation and second language explanations within the zone of proximal development. *Modern Language Journal* 78: 464–83.

Allen, P. 1994. The integration of ESL students into mainstream science classrooms: A Canadian case study. Unpublished manuscript. Toronto: OISE, MLC.

Canale, M. and M. Swain. 1980. Theoretical bases of communicative approaches to second language testing. *Applied Linguistics* 1, no. 1: 1–47.

Chadron, C. 1988. Second language classrooms: Research on teaching and learning. Cambridge: Cambridge University Press.

Donato, R. 1994. Collective scaffolding in second language learning. In *Vygotskian approaches to second language research*, ed. J. P. Lantolf and G. Appel. Norwood, N. J.: Ablex, 33–56.

Doughty, C. and T. Pica. 1986. Information gap tasks: An aid to second language acquisition? *TESOL Quarterly* 20: 305–25.

Forman, E. A., N. Minick, and A. Stone, eds. 1993. *Contexts for learning: Sociocultural dynamics in children's development*. New York: Oxford University Press.

Frawley, F. and J. Lantolf. 1985. Second language discourse: A Vygotskyan perspective. *Applied Linguistics* 6, no. 1: 19–44.

Gass, S. and E. Varonis. 1985. Task variation and NNS/NNS negotiation of meaning. In *Input in second language acquisition*, ed. S. Gass and C. Maden. Rowley, Mass.: Newbury House.

Hatch, E. 1978a. Acquisition of syntax in a second language. In *Understanding second and foreign language learning: Issues and Approaches*, ed. J. C. Richards. Rowley, Mass.: Newbury House.

———. 1978b. Discourse analysis and second language acquisition. In *Second language acquisition: A book of readings*, ed. E. Hatch. Rowley, Mass.: Newbury House.

Kowal, M. and M. Swain. 1994. Using collaborative language production tasks to promote students' language awareness. *Language Awareness* 3, no. 1: 1–21.

———. Forthcoming. From semantic to syntactic processing: How can we promote it in immersion classroom? In *Immersion Education: International Perspectives*, ed. R. K. Johnson and M. Swain.

Krashen, S. 1980. The input hypothesis. In *Current issues in bilingual education*, ed. J. E.

Alatis. Washington, D. C.: Georgetown University.
———. 1982. *Principles and practice in second language acquisition*. Oxford: Pergamon Press.
———. 1985. *The input hypothesis*. New York: Longman.
Lantolf, J. P. and G. Appel, eds. 1994. *Vygotskian approaches to second language Research*. Norwood, N. J.: Ablex.
Lemke, J. L. 1990. *Talking science*. Norwood, N. J.: Ablex.
Long, M. 1983. Native speaker/non-native speaker conversation. In *On TESOL '82: Pacific perspectives on language learning and teaching*, ed. M. A. Clarke and J. Handscombe. Washington, D. C.: TESOL, 207–25.
Long, M. and P. Porter. 1985. Group work, interlanguage talk, and second language acquisition. *TESOL Quarterly* 19: 207–28.
Mercer, N. 1995. A theory of practice. In *The guided construction of knowledge*. Clevedon, U. K.: Multilingual Matters.
McLaughlin, B., T. Rossman, and B. Mcleod. 1980. Second language learning: An information processing perspective. *Language Learning* 33, 135–58.
Omaggio, A. C. 1986. *Teaching language in context: Proficiency-oriented instruction*. Boston, Mass.: Heinle & Heinle.
Pica, T. 1987. Second language acquisition, social interaction, and the classroom. *Applied Linguistics* 8, no. 1: 3–21.
———. 1994. Review article, research on negotiation: What does it reveal about second-language learning conditions, processes, and outcomes? *Language Learning* 44, no. 3: 493–527.
Pica, T., L. Holliday, N. Lewis, and L. Morgenthaler. 1989. Comprehensible output as an outcome of linguistic demands on the learner. *Studies in Second Language Acquisition* 11: 63–90.
Plough, I. and S. Gass. 1993. Interlocutor and task familiality: Effects of interactional structure. In *Tasks and language learning: Intergrating theory and practice*, ed. G. Crookes and S. Gass. Clevedon, U. K.: Multilingual Matters, 35–56.
Samuda, V. and P. L. Rounds. 1993. Critical episodes: Reference points for analysing a task in action. In *Tasks in pedagogical context: Integrating theory and practice*, ed. G. Crookes and S. Gass. Clevedon, U. K.: Multilingual Matters, 125–38.
Schacther, J. 1984. A universal input condition. In *Universals and second language acquisition*. ed. W. Rutherford. Amsterdam: John Benjamins, 167–83.
Schmidt, R. W. and S. N. Frota. 1986. Developing basic conversational ability in a second language: A case study of an adult learner of Portuguese. In ed. R. R. Day. *Talking to Learn: Conversation in second language acquisition*, Rowley, Mass.: Newbury House, 237–326.
Swain, M. 1985. Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In S. M. Gass and C. G. Madden (eds.), *Input in second language acquisition*. Rowley, Mass.: Newbury House.
———. 1993. The output hypothesis: Just speaking and writing aren't enough. *The Canadian Modern Language Review* 50: 158–64.
———. 1995. Three functions of output in second language learning. In *For H. G. Widdowson: Principles and practices in the study of languages*. ed. G. Cook and B. Seidlhofer. Oxford: Oxford University Press.

———. In press. Collaborative dialogue: Its contribution to second language learning. *Revista Canaria de Estudios Ingleses*, 33.

Swain, M. and S. Lapkin. 1995a. Peer interaction and second language learning: Focus on meaning versus focus on form in meaningful context. Proposal submitted to the Toronto Board of Education. Toronto: OISE, MLC.

———. 1995b. Problems in output and the cognitive processes they generate: A step towards second language learning. *Applied Linguistics* 16.

———. 1982. *Evaluating bilingual education: A Canadian case study*. Clevedon, U. K.: Multilingual Matters.

Varonis, E. M. and S. Gass. 1985. Non-native/non-native conversations; A model for negotiation of meaning. *Applied Linguistics* 6: 71–90.

Vygotsky, L. S. 1978. *Mind in society: The development of higher psychological processes*, ed. M. Cole, V. John-Steiner, S. Scribner, and E. Souberman. Cambridge, Mass.: Harvard University Press.

———. 1981. The genesis of higher mental functions. In *The concept of activity in Soviet psychology*, ed. J. V. Wertsch. Armonk, N. Y.: M. E. Sharpe.

———. 1986. *Thought and language*, ed. Alex KoZulin. Cambridge, Mass.: MIT Press.

Wajnryb, R. 1990. *Grammar dictation*. Oxford: Oxford University Press.

Wells, G. 1986. *The meaning makers: Children using language and using language to learn*. Portsmouth, N. H.: Heineman.

Wells, G. and G. L. Chang-Wells. 1992. *Constructing knowledge together: Classrooms as centers of inquiry and literacy*. Portsmouth, N. H.: Heinemann.

Wertsch, J. V. 1979. From social interaction to higher psychological processes: A clarification and application of Vygotsky's theory. *Human development* 22, no. 1: 1–22.