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'Reflective conversation' in the virtual language classroom

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"REFLECTIVE CONVERSATION" IN THE VIRTUAL LANGUAGE CLASSROOM[1]

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ABSTRACT

In the Open University of the United Kingdom, the principle that distance language learners should be encouraged to reflect on their own learning has traditionally been central to the design of conventional (i.e., print, audio, and video) course materials. However, since computer-mediated communication (CMC) technologies have created the possibility for learners to interact with each other and with teachers and native speakers--thus providing opportunities for practice and intrinsic feedback on communicative competence--an issue has risen around the continuing role of conscious reflection. Is conscious reflection, in fact, still necessary in a more interactive learning environment? We argue here that it is, and that a challenge is facing the developers of the virtual language classroom to combine the processes of conscious reflection with those of spontaneous interaction. In our view, the medium of asynchronous conferencing is particularly well suited to such a combination as it is flexible with regard to place and pace, and able to support both monologue- and conversation-like forms of written language exchange. Here we examine the kinds of reflectiveness and interactivity that are mediated through such exchanges, and discuss their value for learning. We examine some examples of CMC exchanges generated during an online course in French, and propose a pedagogy which focuses on the generation of what we are calling "reflective conversation," that is, computer-mediated asynchronous discussion around language topics and language-learning issues.

INTRODUCTION

Language learning pedagogy has long recognized the importance of learners determining their own objectives, choosing ways of achieving them, and evaluating their own progress (Ellis, 1994, p. 516). More recently, the view that conscious reflection on learning can be associated with learning outcomes through the development of learner autonomy has been widely argued, for example, by Little (1996) and van Lier (1996). Little claims that successful language use over time depends on continued language learning, and that to develop proficiency in a second language we need to be ready "to turn almost any occasion of language use into an occasion of conscious language learning" (pp. 26-27). Van Lier further argues that conscious organizing, controlling, and evaluating of experience is the sine qua non for second language learning. Although there is little in the way of empirical research which demonstrates this connection, it is a principle which has nevertheless been adopted on general pedagogical grounds in the design of course materials for distance language learning by the Open University of the United Kingdom (Stevens, 1995). For learners with limited opportunity to interact with other target language users, the promotion of learner autonomy via critical reflection (i.e., evaluation of one's own learning strategies) has come to be regarded as of equal importance as, say, the provision of comprehensible input and the opportunity for productive practice. In Open University courses at the second (post-intermediate) level, for example, approximately 25% of total study time is devoted to reflection, revision, and consolidation

with the aim of helping the learner to develop independently-motivated study habits which will help to sustain a continuing desire to persevere with the language learning process (Stevens, 1995, p. 16).

However, whilst this reflective view of the learning process can be argued as appropriate for conventional (print, audio, and video-based) distance language learning, the advent of technologies which promote forms of direct language interaction amongst remote learners, such as computer-mediated communication (CMC) or computer conferencing, raises the question of whether there is still a significant role in the design of courses for the promotion of these reflective practices. Before we can justify their retention in our curriculum, we need to examine the nature of reflection as a condition of language learning in virtual environments where more intuitive, socially-based communication has been made possible by the use of CMC. In this paper we (a) examine two notions of what interaction is and how it facilitates language learning, and (b) apply these concepts to the description and classification of CMC exchanges that occurred amongst learners of French during a recent Open University online course. We argue that certain kinds of exchanges appear to manifest more of the conditions for both "input-modification" and "social-interactionist" types of interaction, and that these interaction-rich exchanges are likely to occur when topics focus around language and language-learning; in other words, when the interaction also functions as reflective practice. On the basis of this assumption, we propose a pedagogy for online language learning which takes as its aim the promotion of this kind of exchange, which we are calling "reflective conversation."

TWO MODELS OF INTERACTION

The Input and Language Modification Model

Researchers working within what Warschauer (1998) calls an "input-processing" tradition of investigation into second language acquisition (i.e., adopting post-Krashen conceptions of "input," "modification," and "output") have proposed a model in which:

> the L2 is acquired through learners' interaction in the target language because it provides opportunities for learners to (a) comprehend message meaning, which is believed to be necessary for learners to acquire the L2 forms that encode the message; (b) produce modified output, which requires their development of specific morphology and syntax; and (c) attend to L2 form, which helps to develop their linguistic systems. (Chapelle, 1997, p. 22)

The emphasis which this perspective typically brings to the analysis of learner-learner (or learner-teacher) exchanges is the idea that negotiated modification of the content of an exchange (confirmation and comprehension checking, requests for clarification, repetitions and paraphrases, etc.) serves to make the input comprehensible and the output modifiable, thereby fostering acquisition (Pellettieri, in press). In the context of CMC-based interaction it also appears to foreground the role of the written language in enabling an explicit focus on linguistic form. Warschauer (1998) has examined some of the characteristics of interaction mediated by synchronous text-based CMC (i.e., chat systems in which typed messages are received and responded to more or less in real time). According to him, interaction of this kind gives students more time to process written language, and consequently "may be even more beneficial for enhancing language acquisition" than if they took place in a non-electronic environment.

The "Social Interaction" Model

Leo van Lier (1996), taking up a social-interactionist,s view of learning, summarizes the discussion of interactivity in the language classroom by outlining a "range of ways of speaking that may take place between teacher and learner" (p. 184). His description is motivated by a conventional analysis of power relations in the classroom along a decreasingly controlling continuum from "authoritarian" to "authoritative" to "exploratory" (pp. 180-181). This is reflected in the "transmission mode" which involves the "monologic" (or lecture talk) at one end, going on to the "dialogic" ("where speakership

alternates, though it remains under the control of the knower") in the middle, to fully conversational talk at the other end (p. 181). Interaction which exhibits the greatest equality among participants, communicative symmetry in terms of the distribution of turns and roles, and a combination of familiarity of subject matter with unpredictability, is what he calls "contingent interaction" (pp. 175-178), within which there is the likelihood of the best quality learning since "the agenda is shared by all participants and educational reality may be transformed" (p. 180).

To our knowledge, this perspective has not yet been applied to the analysis of learner-learner online exchanges. But the "monologic-dialogic-conversational" framework clearly offers an additional perspective to the input-output view described above, and because it is also concerned with "control" in the interaction, it is relevant to our intention to consider the role in online learning of reflection and learner autonomy. We therefore add the notion of "contingency" to the features of negotiation of meaning, form-focus, and "paced" written production as conditions of online interaction which are expected to facilitate learning.

Synchronous and Asynchronous Interaction

Conversational interaction, being generally spoken and face to face, differs significantly from computer-mediated conversations which tend to be written and at a distance. (Audio and video exchanges are, of course, technically possible and used extensively in some learning environments--see, e.g., the LEVERAGE project Web site--but we are not including these media in our discussion of CMC here because they are still relatively inaccessible to our own students and indeed to the majority of distance learners world-wide). Although we cannot assume that conversational interaction carried out via CMC is functional for language learning in precisely the same way as the face-to-face equivalent (which is what most of the interaction research mentioned above is concerned with), we nevertheless believe that there are enough similarities between written CMC and speech interaction (Yates, 1993) to justify the use of models from the face-to-face environment.

We note that researchers like Warschauer and Pellettieri have concentrated on a synchronous medium (in which messages and replies appear on the screen in more or less real time, as in a telephone conversation), whereas our discussion here will be concerned with asynchronous conferencing (where there may be a delay of hours or days between a message and its replies, as in postal communication)**.** Whilst the superiority of synchronous interaction for producing speech-like language is evident, we do not feel that this necessarily means that it is automatically better for language learning. Many of the elements referred to in the discussion of synchronous interaction for second language acquisition, for example, "noticing," focus on form, strategies of language use, knowledge about language, and so forth (Warschauer, 1998) are also involved in the description of reflective practices. When considering the aim of encouraging reflection on metalinguistic issues, asynchronous conferencing may prove even more appropriate because of the flexibility that learners have to ponder messages and their own productions, the explicit structuring of the users' input into "messages" and "replies," and the ease with which a record of exchanges can be accessed later.

For the Open University‚s adult distance learners, the form of CMC which has so far proved the most accessible and appropriate to their varied circumstances of home-based learning is the asynchronous bulletin board system, or text-based computer conference. Communication via this kind of system proceeds by the participants typing messages and sending them to a central server, where they are displayed all together on an electronic notice board. The most up-to-date systems of this type can display messages either in chronological lists or as threads linked by topic. They are accessed via a Web browser. Typical of the kinds of interaction generated round these systems is a kind of "slow motion" conversation in which messages and their responses may be separated by several days.

The two questions we address in our research are:

1) Which of the "facilitating" features of interaction, as discussed above, can we expect to find in asynchronous conferencing?

2) How can we relate these features to the principles of reflective practice?

Our approach here is to examine some of the data from Lexica On-line, a pilot project involving ten adult English-speaking learners studying in an upper intermediate French course at the Open University,s Centre for Modern Languages. The students were selected at random from the Centre's population of French language students who responded to a questionnaire on Internet access. This work is reported on in more detail in Goodfellow and Lamy (1998). Here we focus on discussing three types of exchange: monologues, social conversations, and reflective conversations. First, we consider how features of interactivity and reflectiveness characterize these exchange types. Second, we consider the issue of "control" in terms of the re-use of language items, the management of turn-taking, and the topics that are exhibited in the conference transcripts**.** Finally, we propose the notion of reflective conversation as the basis for a pedagogy which optimizes the role of this medium in support of language learning.

LEXICA ON-LINE

Lexica On-line was developed by the authors and others from research on computer-based strategies for vocabulary learning (Goodfellow, 1995, 1998; Ebbrell & Goodfellow, 1997), and on the design of distance language learning (The Open University, 1994, 1997). The vocabulary-related aspect of the research involved designing a CALL program, called Lexica. The Lexica programme was given to the participants of the Lexica On-Line project to use at home for vocabulary development. The students, who were located in different parts of the United Kingdom and had never met, had PCs running Windows and Internet connections with Web browsers, which also provided pathways to francophone Web sites. In addition to the Lexica program on disk, they were supplied with texts in electronic form (some of which were from the French course they were currently following), a copy of the Collins-Robert French-English dictionary on CD-ROM, as well as access to a computer conferencing system on the Open University's Web site entitled Project Forum. The conference was moderated by two native French speakers who also acted as tutors throughout the project. Figure 1 shows the overall configuration of the learning environment. Students were required to start by working on set texts, extracting and processing vocabulary items, discuss their progress with the tutors and other students on the online forum, and then use francophone Web sites as a source for further texts with which to repeat the cycle.
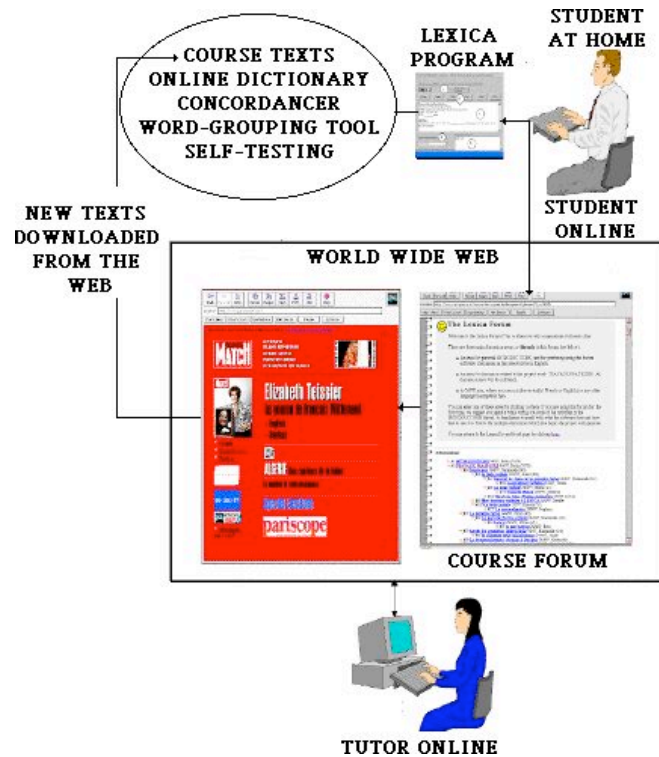
Figure 1. The learning environment for Lexica On-line

The students committed themselves to a minimum of ten hours of work with Lexica On-line over a period of six weeks, in addition to the workload already required of them by their ongoing course (approximately 12 hours). The conference produced 205 messages in all, of which 107 were student generated. Our particular focus in the current paper is the textual output created by students in the main working areas, that is, the 45 messages from Travaux Pratiques (tutorial room) and the 13 messages found in the Café. (The other two areas, Introductions and Technical Help, account for the remainder of the student output.)

DISCUSSION OF LEXICA ON-LINE DATA

The course forum contains several different types of message content, for example, responses to tasks, answers to questions, requests for help, and volunteering of information or opinion. Messages are arranged graphically in "threads" in which those which are apparently on the same topic are grouped together.
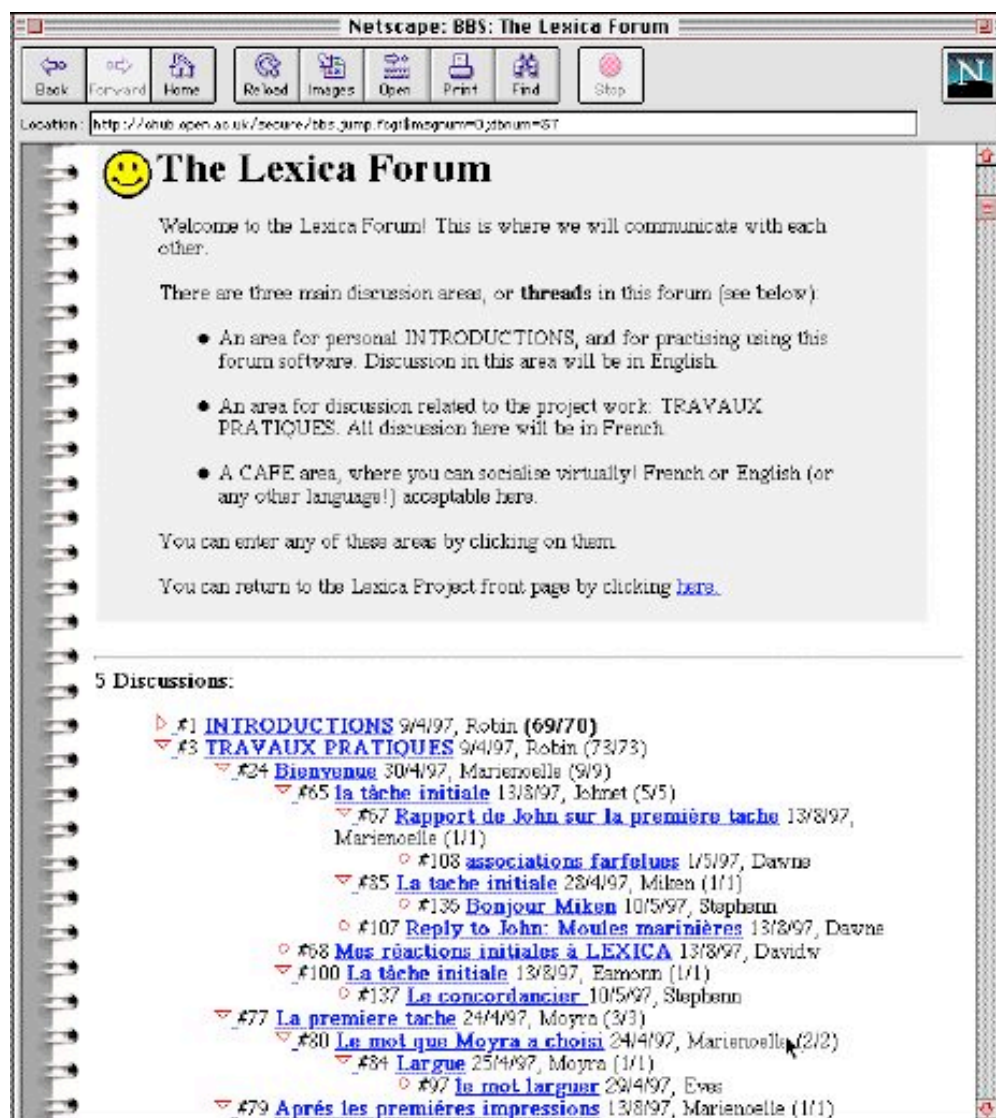
Figure 2. Lexica On-line Project Forum

It is possible for a participant to send a reply to a thread other than the one within which the originating message appears. In practice, however, once people are familiar with the system, they tend to position their replies so that they appear in the same thread as the originating message. Exchanges created over time thus have a persistent presence in the graphical record of the conference. By glancing down the page you can effectively see who is talking to whom. For example, looking at the record of the Lexica On-line conference (as in Figure 2) we can see messages that are part of a thread (i.e., that are themselves replies or have at least one reply, e.g., message #67 where "Marienoelle" explicitly replies to "Johnet"), and messages that stand alone (i.e., that are not themselves replies and have no replies, e.g., message #68 where "Davidw" gives an unsolicited opinion).

Monologues, Dialogues, and Conversations

We propose the terms "monologue," "dialogue," and "conversation" as a tentative framework which arises from our analysis of the data and which we want to use as a means of characterizing asynchronous CMC discourse. Whilst it is clear that some stand-alone messages may well be inspired by thoughts expressed elsewhere on the forum, if they do not refer to these messages and do not require nor invite a reply, they

are not regarded as part of an interaction. Nor are explicit responses to teacher instruction, for instance, messages reporting outcomes of tasks. In the following section we shall use the word "monologue" for a text containing no invitation to interaction, "reflective dialogue" for interaction where the content is "talk about language," and "conversation" for exchanges of a social nature. Afterward, we will discuss messages which can be described as both conversational and reflective, and which together form a thread: they are an important focus of our work. We have called these messages "reflective conversations."

(Note that student messages are reproduced throughout this paper in French, respecting the originators' spelling and syntax. The English translations provided are written as if there were no errors in the originals. Very occasionally we have had to guess at what the student meant, as shown by the sign "?" in the translation.)

Monologue-Type Messages

The message in Figure 3 came in response to instruction issued towards the end of the course, asking all members of the group to report on their searches of the World Wide Web. These searches involved finding and downloading texts suitable for further vocabulary study and discussion on the forum. Lacking any form of address, individual or collective, the text is a narrative in formal French, exhibiting excellent control of higher-level linguistic structures such as the system of narrative tense sequencing (paragraph 1), liberal use of logical connectors (paragraph 2), and fully articulated syntax (paragraph 3). Material showing reflection on a strategy for selecting texts is present (paragraph 2), and relates to language learning itself, as well as to the impact that the software interface is having on student progress. The author focuses on form (paragraph 4), and also makes a comment on content (paragraph 3).

Du nouveau sur l'origine des espèces

J'ai sélectionné quelques pages du Web et je les ai téléchargées. J'ai suivi les conseils pratiques décrits dans << practical help >> et j'ai réussi à poser l'un des articles que j'avais téléchargés dans la base de données de Lexica. C'est vrai, on peut l'utiliser comme d'autres.

Le texte que j'ai choisi c'est ce qui existe à http://www.larecherche.fr/ARCH/N9610/oct96_A01.html qu'on peut trouver en suivant le biais Salle Galilée (Science) de la page Alexandrie. Je suis (ou étais) scientifique (physicien) donc j'ai voulu sélectionner un texte scientifique. Je n'ai jamais sérieusement étudié la biologie mais j'aime lire des articles qui traitent ce sujet dans la presse quotidienne. Je l'ai trouvé assez facile à comprendre, même si j'ai dû chercher quelques mots dans un dictionnaire anglais. J'ai ajouté les mots << rotifères, bdelloïdes, s'accoler, mésappariement, entravé, un coup de gnôle, dudit et levure >> à ma liste.

Les auteurs présentent le une thèse qui exprime l'idée que l'échange du matériau génétique parmi des bactéries réalise la même fonction, en ce qui concerne l'évolution, que la réproduction sexuelle parmi des mammifères, par exemple.

Un petit point contre Lexica pour les textes de la science biologique c'est que Lexica ne permet pas l' imposition des attributs de texte comme les italiques qui ont un usage spécifique dans tels textes.

Latest news on the origin of the species

I selected some Web pages and downloaded them. I followed the advice in "practical help" and I managed to place one of the articles I had downloaded into the Lexica database. It's true that you can use it [?] just like any other.

The text I chose is the one at http://www.larecherche.fr/ARCH/N9610/oct96_A01.html which you can find if you follow the Salle Galilée (Science) link of the Alexandria Library page. I am (or

---

> *was) a scientist (physics) so I decided to select a scientific text. I never studied biology seriously but I like reading articles on that topic in the daily press. I found it relatively easy to understand, even though I had to look up a few words in an English dictionary. I added the words "rotifères, bdelloïdes, s'accoler, mésappariement, entravé, un coup de gnôle, dudit and levure" to my list.*
>
> *The authors present a thesis expressing the idea that, in terms of evolution, exchange of genetic material among bacteria fulfils the same function as, for example, sexual reproduction in mammals.*
>
> *One small point against Lexica for texts in the biological sciences is that Lexica doesn't allow for text attributes like italics which have a specific use in such articles.*

Figure 3. Text of a monologue-type message

Although this kind of production shows evidence of reflection on learning processes and is focused in part on language form, there are other important features (that characterize interaction as functional for learning) that it does not display. In particular, it does not present much stimulus for others to respond to, either as learners or tutors. Whilst readers of this message may have interacted with it privately (mentally or via private e-mails), it did not generate any further exchanges on the course forum apart from one reply from a tutor attempting (in vain) to open it up for general discussion. In van Lier,s terms we might say that it failed to set up "a contextual anchoring which relates that which is said to what is known" and to "expectancies for what may come next" (van Lier, 1996, p. 184). Such is the case in "controlled" classroom discourse in which an exchange ends after the learner replies to the teacher's question. We suspect that the production of messages like this may not contribute as much to the learning process as might first be imagined, even if we take into consideration the quality of its reflection on that process.

Conversation-Type Messages

The next example, Figure 4, is a conversation with a social focus. Here four students in the Café area of the conference are discussing their forthcoming real-life trip to France for the Caen Summer School, which sees a rolling cohort of 120 students per week over several weeks each year. As the four did not meet at Caen the previous year, they wonder whether their next trip may coincide this time. In contrast to the monologue studied above, the messages here are short with topics sustained over time by multiple participants. Replies are explicitly asked for, participants use many interactional discourse markers, such as second-person pronouns, proper names, anaphoric reference ("I'd like a beer," "So would I"), and they signal clearly whether they're addressing an individual or the group (e.g., "A question for all of you"). Whilst language accuracy varies from student to student, there is a general ability to carry on a conversation online, showing that these students are discourse-competent in this context even if they are not always linguistically competent, an important distinction for our analysis below. Also, as participants move from topic to topic (opening times, beer, bars on or off campus, arranging to meet in Caen, looking forward to the holidays) with no pre-set agenda, the dynamics of the exchange indicate a conversation at the less controlled, more contingent end of the continuum.

> A quelle heure ouvira-t-il? Je pense que je voudrais une biere s'il voud plait. L'annee derniere, quand j'etais a Caen, j'ai trouvait un joli cafe et aussi des nouveaux copins. Peut-etre il sera la meme ici. Sante. E.
>
> Bonjour, E. je voudrais une bière aussi mais il n'y a pas de vertu dans une bière virtuelle. Oui, J'aimais le bar Oxygène à Caen, ou peut-être que tu as trouvé un bar, hors du campus. Une question pour tous les adhérents du projet LEXICA, quelle semaine irez-vous à Caen cette année? D.
>
> Bonjour D. Je suis a Caen le 23 aout. Et vous? S.

Bonjour S. Moi aussi je serai à Caen le vingt-troisième août. Peut-être on peut rencontre là et va boire un coup à l'øxygène. Vivement qu'on soit les vacances!

What time does it open? I think I'd like a beer please. Last year, when I was at Caen, I found a nice café and also loads of friends. Maybe it'll be the same here. To your health. E.

Hello, E. I'd like a beer too but there is no virtue in a virtual beer. Yes, I (too) liked the 'Oxygène' bar at Caen, or did you maybe find a bar off campus? A question for all the participants in the Lexica project, which week will you go this year? D.

Hello D. I'll be in Caen on August 23rd. What about you? S.

Hello S. I'll be in Caen on the 23rd August, too. Maybe we'll meet and have a drink at Oxygène? Can't wait for the holidays!

Figure 4. Text of a conversation-like exchange

Whilst these exchanges appear to be interactional in the social sense (i.e., they demonstrate equality amongst participants, communicative symmetry, a quality of being constructed "on the fly," etc.), the asynchronous nature of the medium in which the exchange occurs leads us to doubt the degree to which the interaction could be said to be functional for learning in the input-modification sense discussed earlier. This short exchange actually took place over six days amongst speakers who had no other contact with each other. Given the relative superficiality of the topic, it is difficult to see in what non-trivial sense understanding is being negotiated or how a focus on form might work through such an unreflective, though protracted, exchange. Whilst we would not deny the importance of such interaction for social cohesion, and recognize the possibility that some intuitive acquisitional process may be going on, we do not regard this type of conversational interaction as likely to contribute significantly to language learning objectives in this medium.

Reflective Dialogue-Type Messages

The final example in this section shows a dialogue which demonstrates both the control dimension and a reflective focus. The discussion takes place in the Travaux Pratiques (tutorial room) area of the conference, which is designated for talk about language work. Figure 5 shows two learners trying to work out how to use the Grouping tool of the Lexica software, and why to use it at all.

La tache initiale

Pour ma première liste j`ai choisi les mots suivants:déchiré, couler, défilaient, cédé au piège, s`apprête à publier, reculer, enrayer, dédouaner, boucs émissaires, dépassés. [. . .] Je ne comprends pas les "groups" et à quoi sert cet outil? Pour moi c`est difficile à créer des groupes pour mon choix des mots. Il faudrait que je utilise ma liste (dix mots seulement) ou peut on ajouter des autres mots qu`on trouve dans la recherche? Est ce qu`il y a quelqu`un (une) qui peut donner moi des examples que tu as utilisées et composées et montrer moi qu`est ce qu`on peut faire? Mais, a mon avis l`exercise est très, très intéressante. Mk.

Bonjour Mk.

D'apres moi, les groupes servent comme un aide-memoir. Je suis d'accord que c'est difficile a creer des groupes ou determiner quel est le bon groupe pour chaque mot. Quelquefois, c'est necessaire de placer un mot dans plus qu'un groupe. Pour l,instant j'ai cree seulement six ou sept groupes mais on peut creer d'autres au fur et a mesure. C'est pour vous a decider. S.

> ### The initial task
>
> *For my first list I have chosen the following words: déchiré, couler, défilaient, cédé au piège, s`apprête à publier, reculer, enrayer, dédouaner, boucs émissaires, dépassés. [. . .] I do not understand "groups" and what is that tool used for? I find it difficult to create groups for the words I have chosen. Do I have to use my list (ten words only) or can we add other words which we find during our searches? Is there somebody who can give me examples that you have used and composed, and can you show me what can be achieved? But, in my view, the exercise is very, very interesting. Mk.*
>
> *Hello Mk.*
>
> *I think that groups help to jog the memory. I agree that it's difficult to create groups or to decide what is the best group for each word. Sometimes you have to put a word into more than one group. For the moment I've only created six or seven groups but you can create more as you go along. It's up to you to decide.* S.

Figure 5. Text of a reflective dialogue

Unlike what happens in the social conversation in Figure 4, reflectiveness and form focus are clearly central to this dialogue. But so, too, is contingency in the sense that the two participants engage each other in social behaviors that arise directly out of the "situation" in which they find themselves, and to which they have some personal commitment. In this example, Mk. asks for an explanation of what the Grouping tool is used for. In creating this message for the conference, he utilizes a complex set of communicative and cognitive strategies. He:

- States that he doesn't understand
- Asks what the other people understand
- Seeks clarification as to the "rule" for using the Grouping tool, stating clearly what an alternative interpretation of the rule might be
- Asks for someone to show him examples
- Specifies that the examples should be selected in such a way that he should be able to infer from them what to do

 The reply is socially cohesive (S. reassures Mk. that he, too, finds this difficult) and educational; that is, it is both illuminating (S. provides a metaphor to increase Mk.'s understanding) and imaginative (S. suggests a widening of the grouping task definition: to put the same word in two different groups). At the end of the exchange, S. hands the initiative back to Mk.: "It's up to you to decide. " In essence, S. has provided a non-directive framework within which Mk. can find help. S. has temporarily taken control, become a teacher, in the best sense of the word.

Although opportunities for learning may be afforded in many types of dialogic interaction, we would argue that language learning is particularly likely to occur in the type of exchange exemplified in Figure 5 because it is interactional in both information-processing and social-interactional senses. In this type of exchange: (a) understanding is negotiated; (b) there is explicit reference to knowledge about language and about language learning; and (c) learner engagement is rooted in a social context in which participants are able to negotiate the dimension of control in the interaction, that is, to be both learner and teacher or expert, setting the agenda for each other. Some further considerations around this control dimension will be discussed later when we look at examples of learners re-using, with modifications, phrases which they have taken up from the input by tutors. In the next section a further aspect of interactivity, the turning of a reflective dialogue into a reflective conversation through its being sustained over time by a number of participants, will be discussed.

SUSTAINING EXCHANGES

We have tried to demonstrate above that asynchronous reflective dialogues have features including personal exchange involving negotiation of contingent aspects, form focus, and strategy focus, as well as structured opportunities for comprehending meaning and producing modified output. We have earlier argued that these are the features of interactivity which facilitate learning. In order to maximize the opportunities for learning, therefore, we need to promote the sustainability over time of such reflective exchanges. In other words, we need to turn the dialogues into reflective conversations. Here we look at the factors which contribute to the sustainability of communication in the forum by analyzing successful and unsuccessful threads.

End-of-Thread Messages

In the Travaux Pratiques area of the conference, where purely social chat is discouraged, 75 messages were posted. Of these, 15 messages start a new topic or line of discussion, some of which branch into threads between two and eight messages long. The question we are asking here is, why did these threads stop where they did? If we look at the 32 messages marking the ends of these threads, we find:

>   End-of-thread messages not inviting a reply: 21
>
>   End-of-thread messages inviting a reply: 11

Among the 21 messages where no reply was explicitly or implicitly invited, we find 15 messages written in reply to a student query, a tutor query, or a response to a task. Of the other six, three are general management messages, and three are messages containing encouragement for individuals. In these cases there was no expectation of the interaction continuing.

The 11 messages inviting a reply but remaining unanswered, however, are cases where it would have been possible for the interaction to have gone on. The following is an interpretation of why it did not continue (at least on the forum), from the most to the least frequently-found factor:

- Lack of explicitness may have been the reason for failure to sustain three of the messages: one of them contains a joke, two are written in the conditional (e.g., "If you sent me the words, I would...").
- Three more (from different originators) contain discourse mishaps--the messages are addressed to no one in particular but contain direct questions. In each text, the question is immediately followed by an assertion. Readers may therefore have been confused as to the status of the communication.
- There are two "self-answer" examples--cries for technological help from two different students, each of whom managed to sort out the problem and later informed the group of the outcome.
- One message asks for instances of work already displayed.
- One inquiry contains a syntactic error that may have prevented understanding.
- Finally, one message is a personal reply to an individual. It contains two questions addressed in the familiar tu form, but drew no reply.

There are, of course, many other possible reasons why these interactions did not proceed. For example, the participants may have accidentally or on purpose failed to read some of the new messages for personal reasons or for reasons related to the software interface. They may have concentrated on the latest thread in the chronology of the conference, possibly to the detriment of topics buried deeper within the conference structure. Based on evidence from the texts themselves, however, two other explanations become possible.

First, we have seen above that implicit questions tend to be left unanswered. This raises an important issue about discourse competence in the medium: in real-time oral conversation, a question may be more compelling because of the intonation pattern which was used to deliver it. For example, two of the

messages above contain text which could have been interrogative or assertive in nature, such as the last sentence in one message starting with "perhaps":

> Peut-être la langue scientifique est vraiment la langue mondiale.
> *Perhaps the language of science really is the language of the world.*

In real-time oral conversation, the marker "perhaps" is likely to be part of an utterance with expressive intonation (rising or falling) that attracts agreement, disagreement, a shrug, or a skeptical grunt rather than no response. The textual nature of the communication on Lexica On-line may have weakened the interactional pull of that marker. Computer-mediated discourse may therefore require more explicit verbal (and iconic) interactional triggers than does oral conversation, where intonation and body-language play a big part in sustaining the interaction. However, we note that "easy" chat in the Café, with very brief turns--and much of the elliptical quality of an oral conversation--does not seem to suffer the same problems.

Second, poor control of discourse coherence may be one reason why the message in Figure 6 was ignored, even though its author had earlier helped solve a fellow student's problem concerning the meaning of the word dramaturgique. Prompted by the tutor to explain how he was able to find the solution, the student complies but the defeatist offering in his last sentence proves to be a conversation-stopper.

Stratégies utilisées

Pour moi c'est le contexte qui compte absolument. Je sais le mot "thaumaturge" et ça a donné moi la clef au suffix "-urge", peut-être un/une practicien/ne de quelque habileté. Ainsi j'ai présumé que le mot dramaturgique soit un adjectif concernant cette habileté. Je crois que cette, soi disant, méthode ne sera pas utile pour mes amis.

Strategies used

For me, context is paramount. I know the word "thaumaturge" and it gave me the key to the suffix "urge," maybe a practitioner in some skill area. So I assumed that the word dramaturgique is an adjective relating to this kind of skillfulness. I think that this so-called method will not be useful to my friends.

Figure 6. Solitary reflection

If threads such as this one are to endure, they must be sustained by individuals who have the ability to motivate others to take part in the discussion. These individuals should have the competence to contribute (and to get others to contribute) to conversational discourse. The examples discussed in the section above indicate that for a participant in a target-language computer conference to be shown to be a competent "conversationalist," he or she must have the linguistic means to produce texts that:

- Are well formed and unambiguous not only linguistically but also as pieces of interactive discourse;
- Move the topic on in a way that takes account of what precedes and creates curiosity for what might follow, that is, that contains the combination of familiarity and unpredictability typical of "contingent interaction."

Such skills would promote longer self-sustaining threads within which we believe more potential for language learning exists.

A Sustained Thread Supporting a Reflective Conversation

The thread shown in Figure 7 was sustained in terms of length (eight turns), number of people involved (three students and one tutor), content (metalinguistic), and social orientation (collaborative problem-solving).
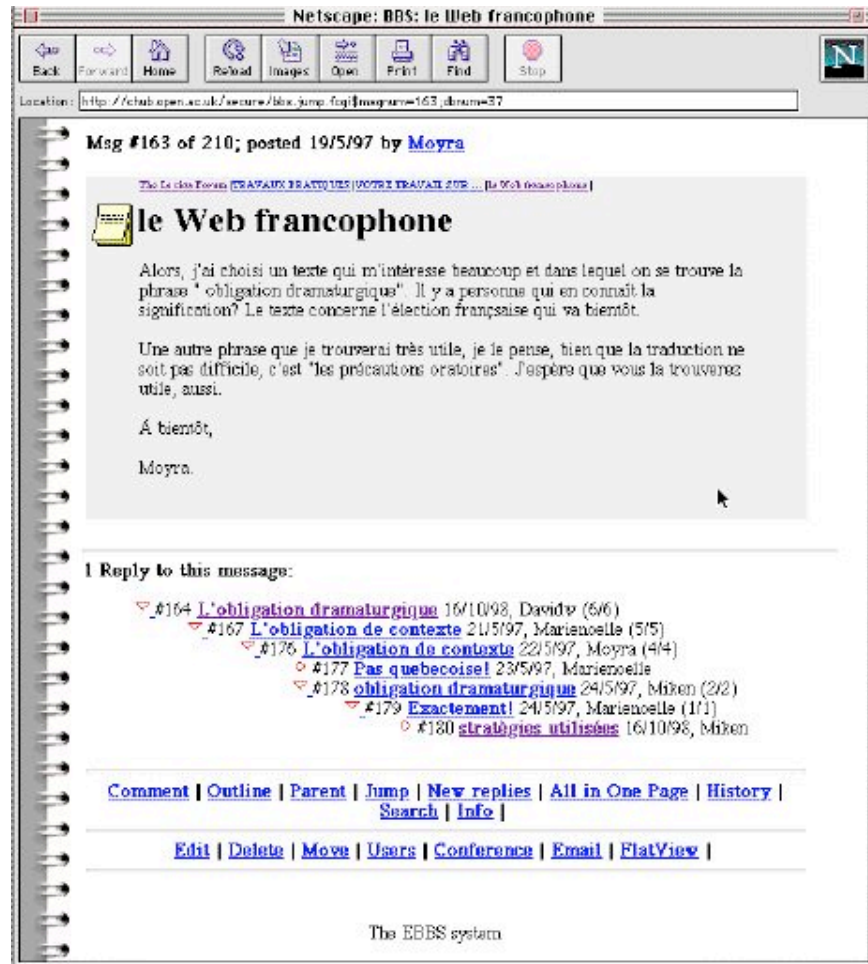
Figure 7. A thread supporting a reflective conversation

Looking at a segment of the thread in Figure 8, we see the collaborative narrative unfold from a student's (M.) request for help with the meaning of obligation dramaturgique, a phrase which is not lexicalized and therefore requires sensitive decoding taking into account the context. The first person to come to her aid (D.) alerts her to the importance of context and offers two possible solutions. After a clarification by M., helper Mk. offers a different approach: he uses an analogy derived from personal experience in order to illustrate the phrase and offer a translation. Both helpers in turn became teachers (or experts) with very different teaching styles. The original inquirer learned something from the responses she received and was appreciative of their quality (as she made explicit in a follow-up message). She later returned the favor by helping out another student with a thorny translation problem. Her friends' productiveness, and eventually her own, occurs as part of a social interaction in which learners take turns at being experts for each other. The interaction is characterized by the negotiation of understanding, a focus on linguistic form, contingency, and communicative symmetry.

Message #164

Je suggère que cette phrase veut dire << le besoin d'être vu de faire quelque chose ou le besoin de faire un récit mimé d'un rôle >> mais on désirerait d'avoir plus d'information en ce qui concerne le contexte de cette phrase. Est-ce que ma suggestion saisit la signification de votre phrase dans son contexte? D.

Message #167

Salut Mn. et D.,

Merci de tes réponses. Comme j'ai déjà dit, la phrase qui m'intéresse est tirée d'un texte concernant l'élection français dans lequel l'auteur critique le président Chirac pour un acte de pur commodité. Voici la phrase entière; < A cet égard, comme les citoyens le sentent de plus en plus dans de nombreux pays, les élections apparaissent comme un simple "rituel nécessaire", une obligation dramaturgique", une sorte de "fête des fous" au cours de laquelle beaucoup de candidats peuvent formuler des promesses qu'ils ne comptent pas tenir.> En anglais, on peut dire " going through the motions" peut-être? Je suis impatiente d'avoir des autre suggestions. [. . .]

Message #178

M., j'aime bien la vie publique et il y a vingt-sept ans que j'étais fonctionnaire pour un conseil régional. La phrase 'une obligation dramaturgique', dans le context que tu as expliqué, fait comprendre à moi la phrase, 'a ritual dance'. C'est une phrase que tous les fonctionnaires utilisent entre eux-mêmes quand les conseillers discutent et jouent des roles adversariales comme dans une pièce de théâtre. Ils montrent les émotions artificiels, ils simulent être en colère quand en réalité c'est simplement la système de débat contradictoire. Pour le grand public c'est excitant, pour les fonctionnaires c'est très très ennuyant. Mk.

A bientôt, M.

Message #164

I suggest that that phrase [obligation dramaturgique] means "the need to be seen doing something, or the need to tell a story in mime," but it would be good to have more information about the context of that phrase. Does my suggestion capture the meaning of your phrase in its context? D.

Message #167

Hi Mn. and D.,

Thank you for your answers. As I said before, the phrase I'm interested in comes from a text about the French election in which the author criticizes President Chirac for having acted on the basis of sheer expediency. Here's the entire phrase: "In this sense, as the citizens of many countries experience with increasing frequency, elections seem to be a mere 'necessary ritual,' an 'obligation dramaturgique,' a kind of 'festival of the mad' in the course of which many candidates may come out with promises which they don't intend to keep."In English we could say "going through the motions" maybe? I'm anxious to read other suggestions.

See you soon, M.

Message #178

M. I enjoy getting involved in public life and twenty-seven years ago I worked on a local council. In the context which you gave, the phrase "obligation dramaturgique" suggested to me the phrase "a ritual dance." It's an expression which council officers all use amongst themselves to refer to the way councilors discuss things, taking up adversarial roles, as in a theatre play. They display artificial emotion and simulate anger when actually all that's going on is the normal course of a contradictory debate. For the public at large it's exciting, for council officers it's very very boring. Mk.

Figure 8. Content of a reflective thread

Self-sustaining threads arise in response to questions deemed worth asking by the learning community, but these questions may not necessarily coincide with those deemed worth asking by the teacher. There is, after all, a contradiction between learning in a formal setting and the notion of autonomy, as pointed out by Lewis (1998). Teachers who deliver a formal learning program have a syllabus that they need to cover, but the danger of this as perceived by van Lier (1996, pp. 180-181) is that the resulting "dialogue" between learner and teacher "remains in the control of the teacher," a condition which militates against both reflection and facilitative interaction. In our Lexica On-line project, the syllabus consists in the management and sharing of vocabulary-learning strategies. Whilst the scope for participants straying too far away from the topic is limited, a measure of contingent interaction is still generated. So how are the two reconciled?

We would claim that the encouragement to "talk about words" provides participants with the opportunity to discuss language and learning strategies, as well as the technology that delivers language to them, in a personalized, non-specialist way. In doing so, they cover the syllabus explicitly whilst still reacting in a contingent way to whatever is the hot topic of the moment in the conference. Even though teachers have no control over when or how the shifts of topic occur, this does not mean that the control dimension disappears altogether from their interactions with learners. In so far as the learning environment is characterized by reflective conversation, we would suggest that learners may have developed an enhanced tendency to "notice" (Ellis, 1990, pp. 193-195) formal features in the interaction. If so, then teachers, or others perceived as language experts, are in a position to exercise some control in the way they model aspects of language use. In the next section we examine some examples of learners re-using language introduced by a teacher.

Control and the Re-Use of Tutor-Introduced Language

In this example the tutor and students are discussing the extent to which grouping of vocabulary items is a useful learning strategy. The trigger given to the participants was a message in the opening part of the conference task written in the target language (Figure 9). In that initial message, "grouping" was expressed by the word groupement and the word groupe was reserved for "student group." No explicit information was given about either of the French words, and no instructions were given as to which of them should be used in the discussion.

Votre tâche initiale

Sélectionnez une dizaine de termes ou expressions parmi les neuf textes de L210 énumérés dans le Guide. Pour chaque terme ou expression:

1. avec Lexica, créez un groupement qui va vous aider à le ou la mémoriser

2. faites une recherche sur ce terme ou cette expression au moyen du concordancier de Lexica

3. ensuite, venez sur le BBS de Lexica et communiquez au groupe votre choix, quelques-unes des raisons de votre choix, et une ou deux des réflexions ou questions que vous a inspiré votre travail avec Lexica.

Your first task

Select a dozen terms or expressions from the nine texts listed in the Guide. For each term or expression:

1. with Lexica, create a grouping which will help you to remember it

2. do some research on the term or expression using the Lexica concordancer

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> *3. afterward, log onto the Lexica BBS and tell the (student) group your choice, some of the reasons for it, and one or two of the reflections or questions which have informed your work with Lexica.*

Figure 9. Instruction for the grouping task

The French dictionary Le Petit Robert 1 (Rey & Rey-Debove, 1996), which lists senses of head words in descending order of frequency, shows groupement as synonymous with the fifth sub-sense of groupe, and devotes only 15 lines to it against 46 for groupe. Thus groupement is both less polysemic, or more specialized, and less frequent than groupe. Also, groupe is a closer cognate to the English word "group." For these reasons we expected that groupe would be more readily accessible for production by our English-speaking learners. By introducing groupement in the text, we set out a context within which the students could experiment with this word if they wanted to. In addition, since we abstained from discussing the terminology, we left the learners free to take up the model or ignore it.

Ex.	In the tutor's message:	In the student's reply:	Fit
1	réez un groupement create a grouping	créez un groupement create groupings	collocates with the same verb
2	dans quel **groupement** l'a-t-il **placé**? in which grouping did he put it?	**mettre** les mots dans un ou deux **groupements** put words in one or two groupings	collocates with a synonym of the teacher's verb
3	combien d'entre vous **utilisent les groupements** comme indices? how many of you use groupings as clues?	je me sers [sic] de groupement de mots par catégories I use category-based word groupings	collocates with a synonym of the teacher's verb
4	les associations [. . .] et le **module "groupement" de Lexica** ont un peu le même but thought associations and the Lexica "grouping" module do in a way achieve the same purpose	cela améliorerait la fonction de groupement de Lexica it would improve the Lexica grouping function	use of groupement to name the software feature

Figure 10. Re-use of the word groupement

While the pair back in Figure 5 kept to groupe throughout their dialogue, the word groupement was used by other students a number of times, mainly in direct replies to tutor's messages containing instances of that word. Figure 10 below is a study of four of the replies in which the word groupement was found. It shows a close fit between the teacher's offerings and the contextual frames in the student's reply. In each case, the fit is not a mere repetition of what the teacher wrote, but is a new production within which modified morpho-syntactic frames and collocational contexts are created without specific prompting. In Example 3, the student has given himself a production challenge in his attempt to re-use the tutor's language: he has conflated two syntactically incompatible structures where groupement functions as a noun (je me sers [sic] de groupement de mots), and where it functions as a gerund (groupement de mots par catégories). (If error-correction were more central than we chose to make it in Lexica On-line, tutors would presumably expect and welcome productions of this nature and give feedback on them.)

Although this apparent tendency to notice form in input from tutors merits further investigation, we have found that it is no simple matter to identify examples of re-use of general language items. As Goodfellow

and Lamy (1998) found, the problem is less acute in the case of technical terms, for example, Web terminology or specialized terms like concordancier (concordancer). Such terms were input as part of the Project Guide, an instructional text with a distinctly "teacherish" feel to it, which all students read before they started work. The word groupement was also presented in this more formal way, and purposefully presented again by a tutor in a number of forum messages as shown earlier in the instructions for the grouping task (Figure 9). Whilst we were able to identify clear examples of students re-using this term, other evidence of tutor-introduced language is scarce in our current data. Nevertheless, if our hypothesis is correct that the reflective conversation environment encourages this kind of re-use, then this would give teachers an important role in controlling the content of some of the language learning that is going on without jeopardizing the social-interactional features which, we have argued, are facilitating it. This hypothesis is a matter for further research.

SUMMARY AND FURTHER RESEARCH

In this paper we have presented a rationale for the concept of the reflective conversation as an appropriate pedagogical objective informing the design and development of online (or virtual) classrooms for distance language learners, where the medium is the asynchrononous computer conference. This medium supports written exchanges ranging from the carefully planned (and monologic) to the spontaneous (and conversational). Reflective conversations, we have argued, fulfil the conditions for language learning which are postulated in the literature on interaction, viewed both cognitively as input modification and as social interaction. We have contrasted these exchanges with others of a more monologic or social nature as illustrated in Figure 11.

	Monologue-type exchange	Social conversation	Reflective conversation
Reflection on learning	✓	-	✓
Socially contingent	-	✓	✓
Negotiation of meaning	-	?	✓
Focus on form	✓	-	✓
Sustained over time	-	✓	✓

Figure 11. Three types of online asynchronous exchange contrasted for features of interaction

The most appropriate topic of a reflective conversation for language learners, we propose, is the target language itself and the experience of learning it. We illustrated this with some examples from a pilot course in which the topic was the vocabulary of French and the strategies and cognitive tools that learners could use to enhance their knowledge of it. We suggested that lexical phenomena are particularly suitable for discussion of this kind as they allow both use and usage to be talked about in an informal way, and they also present the learner with clear strategic choices about how to enhance comprehension, memorization, and production. We demonstrated that learners engaging in reflective exchanges about the meaning of French texts found on the World Wide Web, interacted in the negotiation of roles and voices (student, teacher, peer, specialist, informant, etc.), as well as in simply sharing information about linguistic and learning issues. This we regarded as indicative of the potential of the approach to foster motivation and support learning.

We also suggested that learners engaging in reflective online conversations may be more likely to notice formal features of the target language than they would in other kinds of exchange. This, we hypothesized, might be particularly marked where interactions involve a teacher or someone else perceived as a target language expert. This indicated, for us, an enhanced role for online teachers in modeling features of the language that they wish students to re-use.

The focus of our work from now is to continue to develop the design of the Lexica On-line courses so that tasks have both pedagogical objectives and the potential to allow for student-led discussion agendas. As is

suggested by the relatively low number of multi-student self-sustaining threads in our current data (as against tutor-student or occasional student-student dialogues), the difficulty lies in creating the conditions for learners to be weaned away from "monologues" and the more restricted form of the dialogic mode (answering the teacher), and gradually led towards "fully contingent" conversational interaction which is nonetheless reflective on language and learning issues. Ongoing research is being conducted on evidence from a 1998 follow-up project, Lexica On-line 2, in an attempt to identify the effects on the development of reflective conversation of different types of teacher intervention.

NOTE

1 This article is being jointly published in similar French and English versions by Language Learning & Technology and the Apprentissage des Langues et Systèmes d'Information et de Communication (ALSIC) as an example of collaboration between our two journals.

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