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Learning to learn a language – at home and on the Web

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Learning to learn a language – at home and on the Web

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This paper reports on work at the Open University's Centre for Modern Languages (CML) and Institute of Educational Technology (IET), on the use of technology to support language learners working at home and in virtual groups via the Internet. We describe the Lexica On-Line project, which created a learning environment for Open University students of French, incorporating computer-based lexical tools to be used at home, an on-line discussion forum, and guided access to the Francophone Web. We report on some of the outcomes of this project, and discuss the effectiveness of such a configuration for the promotion of reflective language-learning practices.

1. Introduction: reflective learning at home and on the web

Lexica On-line is a development from work carried out by the authors, and others, on computer-based strategies for vocabulary learning (Goodfellow 1995a, 1995b, Ebbrell and Goodfellow 1997), and by Lamy on the design of distance language learning (The Open University, 1994, 1997). The vocabulary-related work involved the development of a CALL program for vocabulary learning, called Lexica. In the Lexica On-line project, this program was given to a group of students from the OU Centre for Modern Languages' upper intermediate French course, to use at home. They were supported by means of a computer conference accessible via a Web browser, which also provided pathways to the French Web in general. The project set out to address the issue of whether this configuration of technical and tutorial support could promote the development of reflective language learning practices, i.e. enhance the students' understanding of how they learn, and help them to develop more effective learning strategies. The aims were:

- To promote autonomous vocabulary learning and practice of reading skills
- To generate on-line communicative interaction focused on the development of reflective learning practices
- To exploit the Francophone Web as a learning resource.

A group of 10 student participants was selected at random from those who responded to a questionnaire on Internet access, sent to all the students of French of the Centre for Modern Languages. They were all adults, located in different parts of England. All had PCs running Windows 3.1 or 95 and Internet connections with Web browsers. They were supplied with a copy of the Lexica program on disk, including nine texts in electronic form from the French course they were currently following; a copy of the *French-English Collins-Robert* dictionary on CD-ROM, and access to a Web site at the Open University, via a computer conference known as the project forum. The conference was moderated by two French native speakers who also acted as tutors throughout the project. Figure 1 shows the overall configuration, in which students were required to work on a starting set of course texts, extracting vocabulary and processing it, discussing their progress with tutors and other students on the on-line forum, and

using the French Web as a source for further texts with which to repeat the cycle.

The objectives of the project were: firstly, to test whether the students would be able to use the lexical tools without face-to-face supervision; secondly, to try and create self-sustaining interaction amongst the students on-line, with minimal intervention from tutors; and thirdly to introduce the students to the Francophone Web in a controlled way, ultimately guiding them towards the completion of a constructive task. In order to assist these objectives, documentation was put up on the project web site, covering the technical use of Lexica and its pedagogical features (e.g. the on-board concordancer, principles of creating semantic groups etc.), the aims of the on-line discussion, a glossary of technical terms, and an introduction to the French Web. In addition, two on-line tutors were engaged, with the brief of encouraging students to comment on their (and others') progress. The students committed themselves to a minimum of ten hours work over a period of six weeks. This was in addition to the workload already required of them by their ongoing course (approximately 12 hours a week). To guarantee their compliance for the duration of the project they were promised a fee on completion of the work. At the end of the project they were asked to return the log files maintained by the Lexica program, and to fill in a questionnaire reporting on their experience of the project. In addition, all the messages they sent to the project forum were stored for later analysis.
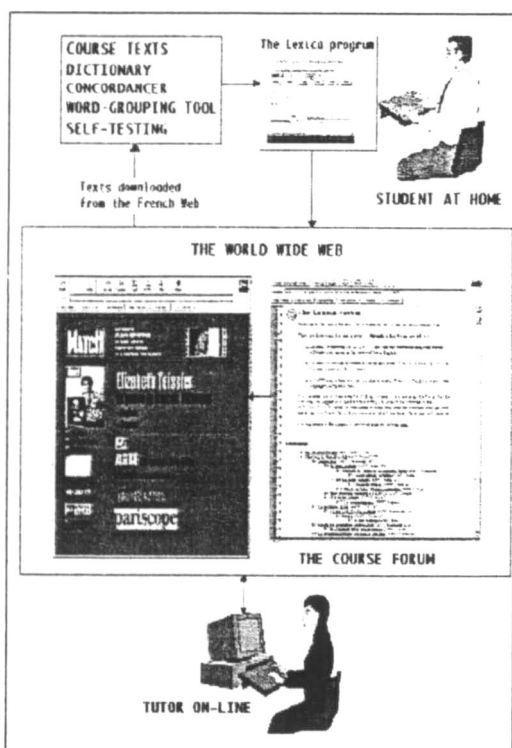
Figure 1 Configuration of students, tutors and technology for Lexica On-Line

2. Outcomes – what they did and what they said

The outcomes focused on here are: student workload, success in the vocabulary learning procedures supported by the Lexica program, the nature of the on-line discussion, and their use of the Francophone Web. Occasional reference will be made to student attitudes as revealed in the final questionnaire.

2.1 Student workload

Table 1 summarises the amount of time, dur-

Table 1   Student time on the project activities

Student	Estimated total time (hours)	Estimated time with Lexica	Estimated time on Forum	Estimated time on Web
s1	20+	6-8	5-6	12+
s2	10-15	5	3	4
s3	15-20	10	2	1
s4	15-20	7	5	3
s5	10	7	2	3
s6	10	3	4	2
s7	15-20	8	4	3
s8	10	5-7	2	1
s9	20+	15	9	2
Average	14	8	4	3

ing the six weeks of the project, that students estimated they spent on each of the constituent activities.

Even allowing for subjective inaccuracy, it is clear that most of the nine students who completed the project put in more than the minimum amount of time for which they were promised payment. (The one who dropped out did so because of a series of problems with her Internet service provider, which for a time made her unable even to receive email.) The estimations for time spent with Lexica are broadly confirmed by the log files they sent back. Most of their time was, in fact, spent using the Lexica program at home. This was to be expected, as the work was based round their learning 50 new vocabulary items – a stipulated minimum requirement. Several said in the questionnaires that they would have liked to develop their use of the forum and the Web, but given that their existing course commitments continued throughout the project, there was not enough time. The estimated time spent on the forum includes reading others' as well as writing their own messages. For some, this was affected by a certain amount of slowness with access to the conference via their modem. Features of the forum software which allow for downloading and working off-line were helpful, but again these take time to learn to use. The relatively low times spent on the Web were a result of the Web task not being . introduced into the work until week four of the project. Most felt they would have spent more time had it been introduced earlier, though it is unlikely that they would all have

indulged as much as the student who spent more than twelve hours exploring the French sites they were given to look at.

In general it seems that the work of the project engaged these students up to and beyond the level of workload expected, with considerable scope for extending it with respect to the on-line discussion and the use of the Web. It is clear, however, that a workload of this size could not be sustained alongside other studying commitments for too long, even with a financial inducement. It is an important consideration whether there are elements of conventional distance language learning courses which could be substituted, not simply supplemented, by this kind of activity.

2.2   Success with Lexica vocabulary learning activities

It is not possible to fully discuss their work with the Lexica program without giving a description of the program, which space precludes. Details of the program can be found in the documentation on the project web site (http://www-iet.open.ac.uk/lexica/welcome.html). Briefly, the program consists of four activity modules:

• Free selection of new vocabulary items from the given texts
• Use of the electronic *French-English Collins-Robert Dictionary* and on-board keyword-in-context concordancer to investigate and record information about meanings and use of these items
• Grouping items according to relationships of meaning and form

• Self-testing for production of the items

The program saves all details of item selection, notes about meaning, groupings, and results of self-tests. The number of items processed (from selection to successful production), divided by the number of hours the program has been in use, gives a general measure of effectiveness for a particular learner's work. This measure has shown, in previous studies, to have some degree of correlation with qualitative assessments of learning, (see Goodfellow 1995, Ebbrell and Goodfellow 1997). That means to say that strategies which optimise the rate of successful processing of items are often linked to deeper approaches to vocabulary learning in general.

The students in this project achieved rates ranging from nine items per hour to one (in the case of a student who chose to do very little self-testing), averaging 5.5. The log files confirm that the time they spent varied between three and fifteen hours, and the number of items selected was between 43 and 119 (all but one achieved the minumum 50). The average rate can be compared with other groups who have used the program under conditions of face-to-face supervision. Table 2 compares them with an English as a Second Language (ESL) group who worked as a class with a supervisior, a Spanish as a Foreign Language (SFL) group who worked individually with an observer, and an English as a Foreign Language (EFL) group who received instruction in the strategies which the program supports (details of these studies can be found in Goodfellow (1995a) and Ebbrell and Goodfellow (1997)).

This comparison shows that the Lexica On-Line students did not suffer unduly from the absence of face-to-face supervision, although it is likely that access to improved documenta-

tion about optimal learning strategies could have futher enhanced their performance. For this project it was expected that on-line discussion would take the place of the supervision that other groups received, but, as will be seen in the following section, they did little explicit discussing of their use of Lexica, preferring to talk more generally about the context of the vocabulary they were interested in. From the point of view of the design of the Lexica program, whilst it has proved to be useable without direct support, and whilst its activities were successful in generating a context for discussion and some degree of reflection, there remain a number of issues about how to promote insights into strategies for vocabulary learning, in particular those concerned with semantic structure and the mnemonic grouping of related words and expresssions.

2.3 The on-line discussion

As stated earlier, one of the objectives of the project was to generate among students an on-line discussion in French which would (a) have as a topic their language-learning practices, and (b) be sustained by them, with minimal intervention from tutors. These were seen as key pedagogical and logistical issues in an approach to distance language-learning in which student collaboration is central both to optimising the learning experience, and to ensuring reasonable workloads for on-line tutors. The locus for this discussion was the project forum.

The project forum

The structure of the on-line forum is a threaded bulletin board system accessed via a World Wide Web browser such as Netscape or Internet Explorer. Messages are displayed in a hierarchy that shows which messages are

Table 2 Comparison with averages from previous studies

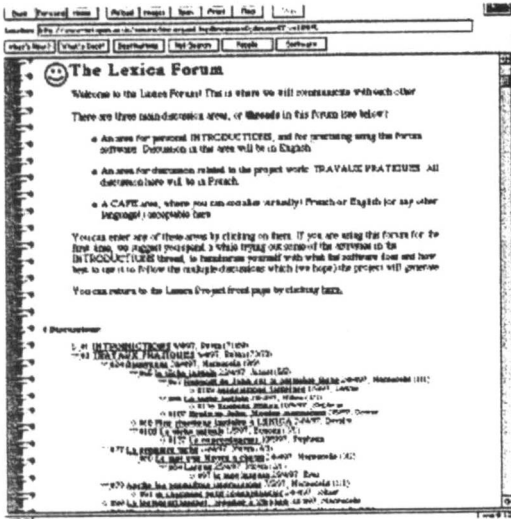| Group	Time (hours)	Items	Correct	Rate
ESL (group supervision)	4.7	16.5	75%	3.5
SFL (individual supervision)	4.8	29	89.5	6
EFL (instructed)	3.8	25	91%	6.6
Lexica On-Line (self-access)	10.8	62	84%	5.5

Figure 2 The Project Forum

responses to which other ones (Figure 2). Thus it can be seen 'who is talking to whom'. Users read messages by clicking on the message title. They reply by clicking the Reply button and typing or pasting their response into the box that appears. The reply then appears in the tree structure underneath the message being replied to. A chain of replies and replies-to-replies is called a 'thread'. (Technical information about the forum and its software can be found at http://trout.open.ac.uk/bbs/welcome.html).

In this forum students had a discussion area for informal chat (the 'Café'), but the tutorial focus was discussion about vocabulary learning, initially their use of Lexica and subsequently their exploration of texts on the Francophone Web. The question was whether the technology could support the kind of discussion which might have benefits in terms of the development of reflective learning practices, i.e. could help the students to become more thoughtful about the processes involved in their language learning. The tutors' role in this was to set initial tasks, such as "report on the first ten vocabulary items you have selected and say why you chose them", and then to moderate the discussion by encouraging comments and replies. A decision was made not to do any overt language correction, in order to encourage spontaneity.

The forum was also used to guide the students' exploration of the Francophone Web, via a 'gateway' page which contained a list of sites which had been judged to be easy to navigate and potentially useful as a source of texts. The selection included fiction, non-fiction, the printed press and the audio-visual media, reflecting the topics and genres studied in their Open University French course. Some students were novice users of the Web, but others were more experienced, so a French search engine was included for those who might wish to extend their explorations. Their task, introduced in the fourth week of the project, was to find a suitable text, download it from the Web into Lexica, study its vocabulary, and bring their findings and questions to the project forum for discussion. All the students completed the search-and-download part of the task, and, although not all of them engaged in extended discussion about it, there were significant contributions from at least four of them about their findings.

The amount of on-line discussion

Table 3 summarises the amount of on-line discussion that went on over the whole six weeks of the project, in terms of numbers of actual contributions from each participant (a contribution is anything from a one-line response to a half-page report on a task):

The table shows that all the students took some part in the discussions, with some contributing two or three times as much as others. In addition to these active contributions, all

Table 3 Numbers of contributions to the forum

Students	No. of contributions	Tutors	No. of contributions
s1	5	mn	44
s2	16	es	13
s3	11	(de	5)
s4	14	rg	28
s5	16		
s6	7		
s7	7		
s8	15		
s9	16		
Total	107	Total	90

students read all the messages sent, (indicated by the forum's 'history' function which shows who has read any particular message, and when). There was also, however, a considerable amount of tutor input, despite the intention to minimise it. Most of the tutor interventions ('mn' and 'es' above) tended to be short messages bouncing questions back to students, those of 'de' in brackets were from an observer, and those of 'rg' were mainly on technical issues and in English.

A look at the shape of threads reveals that, whilst a lot of the interaction took the conventional 'classroom' form of tutor-student-tutor, there was also evidence of developing student-student interaction in several of the threads, for example in the tutor-free 'Café' area where no language work needed to be undertaken. Figure 3 shows a part of the interaction where students were discussing their forthcoming visit to Caen for the OU's summer school.

There was also evidence elsewhere of student-to-student interaction and collaboration focusing on linguistic issues. This was sometimes helped along by a tutor, but a number of the student participants contributed quite substantially to this kind of discussion. Figure 4 shows sections from three student-dominated threads dealing with language questions.

Nevertheless, one conclusion from the evidence of the shape of the on-line discussion has to be that the project did not get the tutor role quite right. One of the tutors, in fact, expressed some concern, in the course of the work, that she was not sure of what she was supposed to contribute - this was exacerbated

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Thread 1
    #122 les groupes basés sûr la deuxiéme syllable
    13/8/97, Carolinet
    #124 hangman 7/5/97, Moyra
        #138 hangman 10/5/97, Stephenn
Thread 2
    #183 Groupement 25/5/97, Eamonn
    #186 mots bizarres 26/5/97, Miken
        #196 Francais a l'ecole 28/5/97, Stephenn
Thread 3
    #163 le Web francophone 19/5/97, Moyra
    #164 L'obligation dramaturgique 20/5/97,
    Davidw
        #167 L'obligation de contexte 21/5/97,
        Marienoelle
        #176 L'obligation de contexte 22/5/97,
        Moyra
        #177 Pas quebecoise! 23/5/97,
        Marienoelle
        #178 obligation dramaturgique 24/5/97,
        Miken
```

Figure 4 Student-to-student interaction on language issues

for her by the decision not to do any overt correction of the French. Although the tactic of reflecting questions back at the group had some success, the well-attested difficulties of generating student-student collaboration in on-line tutorial discussion asserted themselves.

The content of the on-line discussion about language

Discussion about language issues, the main focus of the work, mainly occurred through students responding to questions from the tutors. Topics included the Lexica tools (dictionary, concordancer and grouping tool), a small amount of discussion about language form, issues of word meaning and context, and the French Web. Although the project set out to promote talk about vocabulary and vocabulary-learning, the discussion data shows that it focused less on successes and failures with the Lexica program, and much more on language in general, on meaning in particular, and implicitly on the students themselves as users of French.

The dictionary was referred to a lot, with its offerings quoted, and evaluated. This was perhaps because it is a familar tool, and its

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#4 CAFE 15/4/97, Robin
    #66 Cafe 22/4/97, Eamonn
    #71 Oxygène 13/8/97, Davidw
        #75 Caen 24/4/97, Stephenn
        #86 Rendezvous à Caen? 13/8/97, Miken
            #139 Salut 10/5/97, Stephenn
    #76 Caen 24/4/97, Moyra
    #78 Caen 24/4/97, Johnet
        #82 Caen 24/4/97, Gerardl
            #88 Caen 28/4/97, Johnet
    #112 Caen 4/5/97, Eamonn
    #114 Caen 4/5/97, Moyra
        #135 Rencontre 9/5/97, Eamonn
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Figure 3 Discussion in the on-line Café

way of looking at language is implicitly understood. The message below, for example, supplies – in excellent French – a good diagnosis of the shortcomings of the dictionary's approach.

C'est évident que, pour certains mots, un dictionnaire ne peut proposer qu'une proportion des contextes possibles.[...] Dans ce cas, Robert ne nous offre pas 'sous les allures'. (message 95)

It's clear that, for certain words, a dictionary can't provide more than a proportion of the possible contexts...in this case, Robert doesn't give us 'sous les allures'

The concordancer, despite being an unfamiliar tool, captivated students. They understood the way it worked and were keen to use it, but quickly became aware of its own shortcomings, which were mainly due to the small size of the corpus it was working on (50,000 words).

Je croie que j'ai choisi des mots trop specialisés parceque j'ai trouvé trop peu des références dans la concordance. (message 85)

I think I've chosen words that are too specialised, as I found too few references in the concordancer.

The grouping task gave some students problems, which they set about surmounting. The quote below shows a student facing difficulties caused by polysemy, and offering a solution.

Je trouve que ce n' est pas facile de décider ou le mettre. J'ai un groupement que j'appelle les gens ou je mets les mots qui décrivent les émotions humaines. Peut-être il faut mettre allure la dedans. Il y a tout une gamme des mots comme ça, par exemple squelettique ou racoleur qui ne sont pas trop facile de placer de catégorie. Une solution est de mettre les mots dans deux ou trois groupements. (message 113)

It's not easy to decide where to put them. I've got a grouping which I call 'people' where I put

words which describe human emotions. Perhaps I should put 'allure' with them. There's a bunch of words like, for example, 'squelettique' or 'racoleur' which are not easy to categorise. One solution is to put words into two or three groupings.

Despite such self-help, a few participants found the grouping task challenging, and had some questions about its relevance. This was symptomatic of a general disinclination to engage with language relationships of a more abstract kind, e.g. lexical classification, morphological relationships, suffixation, issues of word frequency. For some, this may have been the result of their unfamiliarity with the metalanguage, but we believe that there may be a more fundamental objection that such things are only of interest to expert linguists, not to people who 'just want to use' the language. Nevertheless, when pushed, some of them showed that they were capable of reflecting at this level. The quote below shows a student rejecting an avenue of research suggested by the tutor:

Par contre, des mots se terminants en '-ière' ne me paraissent pas aussi prometteurs. Ce suffixe me semble dénoter (toujours, quelquefois?) un récipient, ce qui contient quelque chose: du thé, de la marne, des taupes etc. Mais le sens d'un mot se trouve dans sa racine, n'est-ce pas? (message 123)

On the other hand, words ending in '-ière' don't seem as promising to me. This suffix seems to me to mean (always, sometimes?) a container, something that contains something, such as tea, marl, moles etc. But you find the sense of a word in the root don't you?

In this message, the student displays a good grasp of the semantic functioning of suffixes. One might be tempted to say that he 'betrays' this knowledge: earlier in the conversation, he had not revealed the extent of his language awareness. He does it as a result of arguing with his tutor.

The bulk of student-to-student interaction on the Forum was about the meaning of partic-

ular words and expressions, particularly in terms of translation and context. It was around these topics that the discussion showed most signs of becoming self-sustaining. In the quote below, a student is asking for assistance and offering her peers a suggestion (as a gesture of thanks perhaps, or in anticipation of their help). Her call is answered by the author of the message that follows, which focuses on the issue of context.

Alors, j'ai choisi un texte qui m'intéresse beau-coup et dans lequel on se trouve la phrase 'obligation dramaturgique'. Il y a personne qui en connaît la signification? Le texte concerne l'élection françsaise qui va bientôt. Une autre phrase que je trouverai très utile, je le pense, bien que la traduction ne soit pas difficile, c'est 'les précautions oratoires'. J'espère que vous la trouverez utile, aussi. (message 163)

So I chose a text I'm very interested in, in which the phrase 'obligation dramaturgique' appears. Does anybody know what it means? The text is about the forthcoming French election. Another phrase which I think would be useful, though it's not difficult to translate, is 'les précautions ora-toires'. I hope you find it useful too.

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? (message 164)

I suggest that your phrase [obligation dra-maturgique] 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 sug-gestion capture the meaning of your phrase in its context?

Exchanges about translation and context were ways of discussing language which was famil-iar to all, they were in line with students' need to cling to their own language or to familiar referents, and they were also currencies for

social exchange because there were enough peer 'experts' among the group so they could swop valuable contributions. This contrasted with discussions on groupings or linguistic structures: there were no expert linguists among them, so a discussion of suffixes would have been no way to make friends. There was no 'social' advantage to pursuing those topics.

For a student learning a second language, talking about that language is an activity through which identity is constructed. Not only is proficiency revealed, but education, experience and other aspects of personal back-ground too. It is not surprising that some find such discussions in the face-to-face context threatening. What an on-line forum offers is the chance to be much more in control of this process. Contributions can be thoroughly pre-pared, an absence of response is less likely to be marked. There is also more opportunity to observe and assimilate norms of group inter-action. A contribution such as the one shown below would serve as a model, to be studied at will, of how to engage in the relatively unfa-miliar territory of a social discussion in and about French. It is a report on some translation work which a student took it upon himself to do after finding a text on the Web. We are told what procedure was followed. The student also communicates his feelings about the task (delectation), offers a translation and justifies his choice, and then starts a discusssion of the metaphors associated with the semantic field, and their etymology – all unbidded:

J'ai choisi un texte politique parce que c'était une semaine très importante en France. J'ai cherché tous les journaux et enfin j'ai trouvé un debat entre Laurent Fabius et Alain Madelin en Liberation. Ici on trouve plus de phrases et mots intéressants. En particulier c'est difficile à traduire les mots qui expliquent les idées – comme par exemple 'ultralibéralisme'. à mon avis on peut utiliser en anglais 'Thatcherism' parce que pour nous le mot 'liberal' est toujours associé à les idées de la centre-gauche et pas avec la droite, comme le RPR. Je me délecte à trouver des expressions très métaphoriques, comme – 'Là démocratie est bonne fille, mais elle n'est pas sotte', ou, – 'Il ne suffit pas d'agiter

un chiffin rouge devant la France pour qu'elle perde la tête'.

J'ai trouve aussi des mots intéressants tels que, 'berner' ('to fool' or 'to hoax' but also 'to toss in a blanket!'). Est ce quelqu'un qui peut m'expliquer l'origine de cette seconde signification? Pendant faisant du surf j'ai pris plaisir à lire 'le virtual baguette' Ici on a lu l'explication de la guillotine avec beaucoup d'expressions humoristiques. (Merci Stephen pour le renseignement. Je l'ai trouvé cette page par 'Yahoo' très facilement comme tu as dit).

En résumé j'aime bien le WWW en français et je continuerai flâner là après le fin de Lexica. Enfin, merci John et Moyra. les traductions que vous avez suggestées semble exactes à moi. Vraiment les phrases et les idées politiques sont difficile à traduire! (message 204)

I chose a political text because it was a very important week in France. I searched all the newspapers and I finally found a debate between Laurent Fabius and Alain Madelin in 'Libération'. There were interesting words and phrases there. Words expressing ideas are particularly difficult to translate – for instance 'ultral-ibéralisme. I would think 'Thatcherism' could be used as a translation, because the English word 'liberal' is always associated with the ideas of the centre-left and not with the right, as is the case with the French RPR. I delight in discovering metaphors like 'Democracy may be prepared to put up with a lot but it's no fool' , or, – 'Showing France a red rag won't be enough to make her lose her senses'.

I also found interesting word s like 'berner' ('to fool' or 'to hoax' but also 'to toss in a blanket!') Can anyone explain to me the origin of the second meaning? While surfing I really enjoyed reading the 'virtual baguette'. There I read the explanation of the 'guillotine', and found many humorous phrases. (Thank you, Stephen, for the info. I found the site very easily via Yahoo, as you had suggested).

. In summary, I really like the francophone Web, and I'll keep on roaming it after the Lexica project has ended Finally, thanks John and Moyra. I think that the translations you suggested are

good. But political phrases and ideas are really difficult to translate, aren't they?

This student has achieved a position of fully engaged member of the learning community, and is declaring this to the group, in French.

Evidence of the re-use of language in the on-line discussion

An implicit assumption underlying the attempt to promote discussion in L2 is that some new language may be learned either in a considered way, as a result of correction, or in a more osmotic way, via imitation of a model, from a tutor, a peer or an authentic stimulus. Partly through shortage of time, and partly because of the abstentionist error-correction policy in this project, accuracy in French was not discussed by students or tutors, so re-use of language arising from correction does not figure in the discussion data. Re-use of the second type, of vocabulary and structures encountered in the tutors' contributions, in each others' messages in Web texts or in the project guide, is a subject of continued investigation. The clearest evidence is of re-use of Web-related terminology and phraseology – we assume that phrases like *faire une recherche, charger un texte dans, grâce au moteur de recherche Ecila, le forum* or *télécharger,* all of which appear in student message text, have come from the dedicated glossary given with the project guide, as such terms do not appear in (even recent) conventional dictionaries or in the electronic one which students were using. The search for evidence of more subtle kinds of 'osmotic' re-use is an important research issue. The question whether it happens in on-line discussion, and if so, how it can be detected, poses a challenge to our methods of analysis and interpretation of on-line discussion data, as well as to our theories of language acquisition. In the post-project questionnaires the students claim to have learned a lot of French, but how can this be demonstrated? The relatively small amount of discussion data generated by this project is unlikely to yield much in the way of evidence of re-use of a more general kind. This particular area of research will be one of the objectives of a scaled-up version of the project, planned for 1998.

3. Summary – what has been learned

Distance learners are able to use the Lexica program as effectively as those who have face-to-face support. The activities of the program provide an appropriate framework for a strategic approach to the learning of vocabulary, and the on-line discussion forum is an efective platform supporting reflective discussion of issues arising out of the application of these strategies. The forum and the program together provide the means and the rationale for the exploitation of texts found on the World Wide Web. On-line conversation by students proceeds initially on the basis of questions deemed 'worth asking' by the group. Such topics with value for reflective learning practices include talk about translation and discussion about context – including personal experience. Exchanges of the latter type may be favoured by the characteristics of on-line discussion which afford participants more control in the presentation of themselves and the assimilation of group norms. Discussion areas with which students are less likely to engage initially are those concerned with linguistic form; this is probably because it is considered to be of interest only to expert linguists. Initially, the role of tutors is likely to be a reflection of the conventional classroom model of tutor-student conversation, but self-sustaining discussion by students can be promoted by the tactical use of 'bouncing' questions back, and by focusing on areas of discussion which they themselves have introduced. Students will take up and re-use relevant terminology, but the search for evidence of more implicit types of acquisition is problematic.

In general, the responses students gave in the post-project questionnaires was positive and enthusiastic, reflecting the work they had put into it. They felt that this project represented an enhancement of their language learning experience and were keen that it should be incorporated in a more extended form into their OU course. Further development of the approach is now underway, in the context of a research programme funded by the Open University, looking at principles of open learning of languages on-line, and focusing on the following key issues:

- Promotion of student-student on-line interaction. It is necessary to understand how the social dimensions of the construction of personal and group identity in an on-line L2 discussion, affect the involvement of individuals. Strategies for supporting learners working together should take into account the needs that different individuals have for security in the presentation of themselves. This work will take account of experience in on-line language learning elsewhere (e.g. the MERLIN project, http://www.hull.ac.uk/langinst/merlin).
- Promotion of reflective discussion of linguistic issues. Student resistance to 'expert linguist' topics needs to be defused, if the full benefits of reflection on learning practice are to be realised. The tutor's role is involved in this, especially in the development of metalanguage, as is the representation of these types of relation in the design of computer-based tools (such as the Lexica program) and of on-line documentation and study guides. Implicated also are questions related to the formal aspects of coursework, for example the issue of assessment. Reference will be made to existing criteria for the assessment of live conversational interaction developed at the Centre for Modern Languages.
- Investigation of re-use of 'new' language. This is both a theoretical and a methodological issue, involving the development of techniques for identifying specific examples of language use in a database of L2 on-line discussion. Data is being examined from a number of sources, including different types of computer conference and email discussion. Pedagogical considerations will arise from any evidence that can be found of sytematic re-use by learners or modelling by learners and tutors.

The next stage in the development of the Lexica On-line project will be a re-designed and larger-scale version of the course, to be run with OU French students in the spring of 1998.

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