

What influences reflective interaction in distance peer learning? A longitudinal study of four online learners of French¹

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Abstract:

Researchers in text-conferencing have not yet addressed the relationship between changing task designs and learner behaviour, as few have been able to monitor learners over time. We present a study of 4 learners of French-as-a-foreign-language, interacting within three task frameworks, including semi-structured, highly structured and unstructured contexts. Based on the work of Little (on reflection) and Van Lier (on learner interaction), we define a pedagogy prioritising 'reflective interaction'. We ask whether reflective interaction is more likely to arise from some tasks types than others. We use quantitative findings over 15 months and content analysis of learner messages, and relate this to a feedback questionnaires. The results appear to challenge the assumption that task type is the main predictor of the volume of reflective interaction.

Why does the question arise? Theoretical context and literature sources

The language teaching and learning research community is currently able to agree which conditions are required to create a good language learning experience (Chapelle, 2001, and Norton & Toohey, 2001). According to these researchers, three types of conditions must be met: psychological, socio-cultural and cognitive (i.e. cognition of linguistic form). A broad consensus has also emerged that explicit attention to form is beneficial (Williams, 2001) and that it can successfully be integrated into a communicative curriculum (Ellis, 2001 and Fotos, 1993). Most of the debate has been about instructed form-focus (Doughty, 2001), though Storch (1998) shifts the question towards the impact of task design and away from the influence of direct intervention by instructors, Lightbown (1998) highlights the importance of timely learner-initiated 'noticing' to secure acquisition, and Williams (*op. cit.*) departs from instruction altogether in that she chooses to look at form-focus in 'spontaneous' talk among learners.

Additionally, researchers have claimed that the most effective language learners are those who make greater use of reflective strategies (Little, 1996), a particularly important condition when it comes to distance-learning, as shown by White (1995). Good practice in the distance-teaching of reflection has consisted mainly in embedding metacognitive training into the distance materials themselves, both via

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task design and through the 'tutor's voice in print'. (Hurd *et al.*, 2001 and Murphy, 2001). But today availability of electronic tools has shifted the question of design to the interactive online setting, yet researchers in text-conferencing have not addressed the relationship between changing task design and learner behaviour, as few have been able to monitor learners over time. We have had this opportunity, and were able to follow language learners working in asynchronous conferencing mode over 15 months. We studied their use of reflective interaction, by which we mean both form-focussed and metacognitive strategies. We have framed our investigation within a wider socio-cultural context that took account of peer learning, learning preferences and other ethnographic data, as detailed in the next section.

Peer-interaction

The work of Lave and Wenger (1991) has established that communities of practice are consolidated through peers acting as experts for each other. Jorvel and Hokkinen (2002) have suggested that peer interaction leads to higher-order skill use in teacher education. The value of peer learning of languages, though under-researched, has been asserted by Mrowa-Hopkins (2000). Van Lier (1996) shows that there is learning value in the peer exchanges that learners have on what he calls 'contingent' topics, i.e. issues arising spontaneously in conversation, out of the participants' own interests. His insights complement Williams' in that not only is it claimed that peer-interaction assists 'noticing', but also that its affective and motivational impact ensures the sustaining of conversations within which learners can create further learning opportunities for themselves. Our earlier work has explored reflective interaction among learners participating in what we have called 'reflective conversations' (Lamy & Goodfellow, 1999) and has supported Van Lier's claims.

Deep-learning and orientation to form

From educational research we know that learners can adopt deep or surface learning approaches. For example, applied to lexical learning, the surface learning mode might include manipulating and memorising, whereas the deep learning mode requires a critical understanding of material. Ellis (1995) finds that deep-processing is one of the most effective strategies for lexical acquisition and Goodfellow (1995) has shown that deep-learning is crucial if learners are to develop a system of mental links between lexical items sharing some underlying structural feature and to give themselves access to the lexical networks of the L2. Deep learning is promoted by active learner participation and Biggs (1985) has associated deep learning approaches with 'affective involvement' which is supported by interaction. For these reasons, in this study, we are interested in the consciousness-raising potential of form-focus rather than on its acquisitional or error-corrective benefits, and our definition of 'form' is broad in order to capture learner reflections not only about grammar but also about lexical, semantic and genre related structures.

Socio-culturally situated learning

Finally, if we believe that cognitive and metacognitive influences are exerted within a socio-affective context, we must also be prepared to consider the socio-cultural factors that might affect this context. In her analysis of a Germano-American group on line, Belz (2001) summarizes the need for a broad analytic perspective thus: "By

attending to the social and institutional features of language valuation, technological know-how and access, and classroom scripts in conjunction with ethnographic data on individual learners' psycho-biographies and perceptions of situated activities in telecollaboration, I have emphasized the importance of the inter-relationship between structure and agency in interpreting human behaviour in this environment". Our study will also take account of this inter-relationship.

In the context of the literature surveyed, we have framed the hypotheses that:

- (1) learners who have had experience of deep-learning and form-focussed strategies are likely to be effective in their language learning
- (2) learners who have experienced some of this form-focussed work through pleasurable 'contingent' interaction with peers are likely to be motivated to engage in further form-focussed interaction, increasing their experience and creating a 'virtuous' spiral of metacognitive learning

This leads us to ask to what extent task designers can influence this process, i.e. what other factors outside of their control also come into play. We therefore offer the following research questions:

- (1) can an intrinsic educational factor such as task-design influence distance-learners into adopting reflective form-focussed strategies?
- (2) what sort of extrinsic socio-cultural factors impact on the adoption of reflective form-focussed strategies by distance-learners?

Methodology

To answer these questions, we will analyse conversational data from learners over time, taking account of the surrounding circumstances, both within the educational setting and in the real world outside. Drawing on both quantitative and qualitative observations, we will now address these issues by presenting an ethnographic study based on a small group of learners who fulfil these conditions.

The participants

This study looks at four part-time adult students, intermediate-to-advanced learners of French at the Open University, who volunteered to take part in a project ("*Lexica Online*") in April-July 2000, then went on messaging asynchronously as a self-help group until April 2001, at which point they became participants in two different content-focussed structured projects ("*Simuligne*" and "*Interculture*"), both conducted April-July 2001 with the collaboration of the University of Franche-Comté in Besançon, France². Thus the subjects of this study took part in the same three 10-week projects. Although the project cohorts oscillated between 40 and 100, these four individuals were unique in remaining active throughout the 15 months. Thus they fulfilled our requirements of exposure to different instructional designs and of participation in sustained peer-exchanges online (indeed they never met face-to-face throughout the entire length of the study). All were unaware of our research focus.

Task delivery

² Simuligne is part of the ICOGAD research project supported by the Programme Cognitique 2000, French Minister of Research

All the interactions in this study were delivered via asynchronous conferencing tutor-mediated forums. “*Simuligne*” ran on WebCT, as did “*Interculture*”, while “*Lexica Online*” used FirstClass. Additionally for “*Lexica Online*” we provided students with standalone software for vocabulary work, designed for the project by Goodfellow (Goodfellow, 1995).

Task design in each of the three projects

In “*Lexica Online*”, focus on lexical form was the explicit aim. Students were required to start by working on set texts, extracting and processing vocabulary items, report their results on the online forum, discuss them with the tutors and other students, and then use francophone Web sites as a source of further texts with which to repeat the cycle. The aims of this approach were to give support for vocabulary learning, promote interaction in the target language and reflection on language learning strategies.

The “*Simuligne*” project outcomes were skills development, cultural awareness and enhancement of intercultural competence. Task design was inspired by the pedagogy of ‘simulations globales’ (Caré & Debyser, 1995, and Rousselle, 1994) which seeks to restore the natural communicative status of language in educational settings. A typical scenario requires that learners create a small community such as a block of flats, a village, a circus, an island, based on a teacher-produced manuscript but developed according to the imagination of the students. Simulations globales comprise three stages, which may be played out over any length of time, from a weekend to a month or a whole year: building a setting for the small community, creating fictional identities for the members of the community and interacting within the community in order to achieve collaborative projects (such as designing a poster or drawing up a contract) or to solve local conflicts (for example incidents and problematic events threatening the successful creation of the poster or clinching of the contract). Simulations globales are thus different from discrete role-plays in that they frame all the language activities within a unified fictional but realistic framework. In our project, the scenario was the competitive creation of an imaginary French city possessing the attributes required for the hosting of an Open University summer school. Our learners were assisted in this task by a small group of native-speaker helpers (NShs).

In “*Interculture*”, also involving NShs, the emphasis was solely on intercultural awareness. Based on the “Cultura” project designed by Furstenberg *et al.* (2001), it included the following steps:

- two groups (French and British) answered three questionnaires in L1: a word-association exercise, a sentence-completion task, and 10 situations to which they had to react. All three tasks concentrated on cultural concepts and situations deemed likely to elicit very strong but different emotions from each national group (see Table 10 further down for details).
- participants were then pointed to a Web form which returned their and their counterparts’ responses side by side. Juxtaposition allowed students to immediately “see” similarities and differences in cultural attitudes. They then

entered into an asynchronous exchange in which they asked for clarification, shared observations and voiced opinions.

Table 1 summarizes the design differences between the three projects.

	Lexica Online	Simuligne	Interculture
Are students explicitly asked to focus on form?	yes, by explicit instruction	no, but some sub-tasks involve creating documents in imitation of existing texts	Yes, but in the word-association sub-task only
How does the design of each task relate to form-focus?	form-focus is the primary learning outcome;	In some sub-tasks form-focus is a tool to aid individual production	In the word-association sub-task, form-focus is a tool to aid cultural awareness
How does form-focus relate to peer-work?	form-focus is the main topic of conversation on the forum	In some sub-tasks form-focus is a tool to aid group production	In the word-association sub-task, form-focus is a tool to generate debate on intercultural issues
Which aspect of form is targeted or elicited?	Lexical and semantic relationships and networks	Stylistics and register	Lexical connotations

Table 1: characteristics of the three projects under study

Data collection and units of analysis

Our data was drawn from all three conferences, from three sets of student evaluations, and from an open-ended interview of each participant. Total number of messages analysed, per learner (identified by their initials) is as follows:

	H	G	M	N
Lexica Online	31	77	29	22
Simuligne	31	101	83	45
Interculture	64	176	18	54
Total	126	354	130	121

Table 2: Number of messages produced (by learner)

We charted the occurrence of form-focussed messages and exchanges throughout each conference. The following types of evidence of linguistic reflection were considered:

- L1-L2 reflection, i.e. the use of a form with additional metalinguistic material, for example ‘*edit*’, *est-ce que c’est le même mot en français?* or ‘*chiffonné*’, *crumpled n’est-ce pas?*
- autonymous usage: this refers to the auto-referential properties of language. For example when we say “a dog is barking” we use language referentially, but if we say “dog takes an ‘s’ in the plural” we are using the form dog to refer to the word ‘dog’. Rey-Debove (1978) argues that autonymous usage reveals that for the user, the autonymous form is being given salience as extraneous to his/her code. L1 and L2 forms can be used autonymously, signalled or not by

italics or quotation marks, and accompanied or not by explicit comment. In our corpus autonomous usage tends to be confined to single words or short phrases, e.g. the word ‘bio’ in : *Je n'ai pas compris cela des infos, bien que j'aie y mis mon "bio"* (I didn't understand this from the instructions, even though I posted my “personal intro” to that forum), or ‘*la page qu'on peut voir sous "le fenêtre de dialogue" (?) est blanche*’ (the page that you can see under the dialogue box (?) is blank).

- communicative mishaps: to identify these, we followed Toyoda's (2002) methodology for online chat analysis, itself based on a schema devised by Varoni and Gass (1985) for classroom talk. They distinguished between four features: trigger, indicator, response and reaction. As Toyoda explains: “a *trigger* is the stimulus for the negotiation that ensues, and an *indicator* alerts that there is a communication problem. Following an indicator, there are generally a *response* from the speaker who caused the problem and a *reaction* to the response.” Below is an example from our data.

NST (native speaker tutor)	coucou	<i>cooe!</i>	
Student	Bonsoir, j'arrange mes fenetres!	<i>Good evening, I'm sorting my windows</i>	TRIGGER
NST	tu fais des rideaux ?	<i>you're making curtains?</i>	INDICATOR
NST	ou tu fermes les volets ?	<i>or closing your shutters?</i>	
Student	Non, mes fenetres d'ordinateur - cet a dire, l'ecran	<i>No, my computer windows – I mean, the screen</i>	RESPONSE
NST	;-)	;-)	REACTION

Table 3: example from the “*Simuligne*” corpus, using the Varoni and Gas analytical model

Using these criteria, we computed the percentage of form-focussed messages in each phase of each of the three projects. To compensate for statistical distortion due to low numbers in some phases, we also carried out an analysis of content. In section 3, we report and interpret our findings project by project. In section 4 we will present a summary of findings across all three projects.

Data analysis for each project and interpretation

“*Lexica Online*”

In “*Lexica Online*”, the percentage of form-focussed work was high for all four learners, as might be expected for a task explicitly requiring it.

	H	G	M	N
All messages	31	77	29	22
Form-focussed messages	13	37	16	11
F-f as % of total	42%	48%	55%	50%

Table 4: message distribution per learner in “*Lexica Online*”

However, this needs to be qualified after a look at the content of student contributions as the project progressed. The timeline below shows form-focussed messages (expressed as a percentage of all messages) per student per phase.

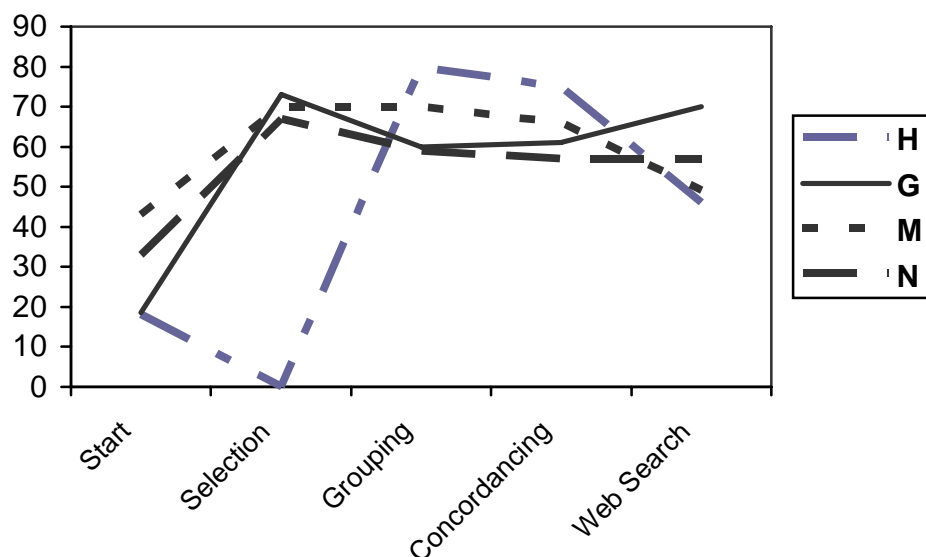


Table 5: “*Lexica Online*” timeline. Phases included a three-week induction (Start), one week in which learners had to select their own lexical learning outcomes (Selection), then a week of work on lexical groups (Grouping), followed by a week of corpus-based research (Concordancing), with a final week searching the Web for texts to process (Web Search).

The score of 20% to 40% across all learners in the Start phase arises from their preoccupation with creating accented characters, and reflects a good level of interaction, as they shared tips for achieving this. The flat line for N reflects his steady posting from the Selection phase onwards, but his messages are either task-reports or error-correction requests addressed to the teacher, rather than interactions with his peers. M’s line starts off highest, reflecting a mix of straightforward task-reports and numerous interactive comments on form. However, the line dips mid-way through the Concordancing phase, which is when she twice logged on to urge her then quiescent group to answer her. Their silence at that point may have demotivated her. The only line to rise in the Web Search phase is G’s, reflecting her numerous postings of site URLs (e.g. synonyms site, site to revise the past historic, automatic translation sites) and her reviews of their merits, authoritative and accepted by the others, possibly because of her status as a professional Webmaster in ‘real’ life. Like N, G contributed more reports (on the set tasks and her own explorations) than interactions. H posted the highest percentage of form-focussed messages in the middle phases of the project (like M, a mix of task-reports and interactive comments). As we will see later in her feedback, H was extremely positive about the dedicated “*Lexica Online*” software, so her enjoyment may be the reason why her line is so much higher than her peers’ in the phases which required these tools to be used.

“*Simuligne*”

The “*Simuligne*” scenario was organized into five phases, and 16 sub-components summarized in Table 6.

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
2-22 Apr	30 Apr-13 May	14 May-3 June	4 –23 June	25 June-6 July
Get connected	1. How to chat in a forum 2. Introduce yourself	3. Research four French cities 4. Imagine a city 5. Choose a city together 6. Create your character, invent his/her name 7. Create your character's role	8. Description of the city 9. History and anthem of the city 10. Making contact 11. Interactions 12. Unplanned incidents	13. View and vote 14. Publication of vote results 15. Feedback from participants 16. Award presentation

Table 6: timing and content of the phases of Simuligne

As “*Simuligne*” was not designed to draw attention to form, it is unsurprising that few form-focussed messages were produced. Here are the figures for the four subjects of our study:

	H	G	M	N
All messages	31	101	83	45
Form-focussed messages	6	14	20	5
F-f as % of total	19%	14%	3%	11%

Table 7: message distribution per learner in “*Simuligne*”

Content analysis shows that these few occurred in particular phases. In Phase 1, which was about ironing out students’ technical problems, they had cognitive gaps and wanted to learn the French equivalents for e.g. ‘download’, ‘edit’ or ‘dialogue window’. In Phase 2, a time for initial socialisation, they talked about their nationalities and their roots, negotiating the semantic and sociolinguistic implications of using terms like ‘anglais’, ‘britannique’, ‘gallois’ etc. In Phase 4, when co-writing the city’s anthem, all wanted to know about the false friends ‘vers’ and ‘strophe’ (‘line’ and ‘verse’ respectively), and talked about poetic form (syllables, rhyme, scansion). In the final phase, they talked about stylistics and register, and the different types of French they had learnt. Table 8 summarizes these observations, using a gradation of dark grey to lighter grey to white to indicate a decreasing volume of form-focussed messages.

Conference phases	Content of form-focussed messages	Trigger for form-focussed talk
1 : Get connected	ICT-related words and creation of French accents	Cognitive gap (language)
2: Introduce yourself	Nationalities, geography	Identity-building online
3: Create a city, a ‘character’ and a role		
4: Animate the city (history, anthem, citizens, incidents)	Versification, rhyming, scanning	Cognitive gap (language)
5: Vote for the best city. Feedback from participants	Types of French read/produced during the project	Reflection on own learning

Table 8: pattern of form-focussed messages on “*Simuligne*” conference.

The collaborative activities prescribed within the scenario resulted in no form-focussed work, apart from the conversations about verse-writing. Yet among the “*Simuligne*” sub-tasks, some provided indirect encouragement to discuss form, since they involved learners in using selected websites, for example as a stimulus for co-writing a pastiche of advertising-speak, or for etymological documentation to help invent plausible French surnames. Our interpretation is that the success (in the terms of this study) of the verse-writing sub-task is due to learners ‘noticing’ the false friends ‘line’ and ‘verse’ (i.e. Toyoda’s ‘indicators’), exciting their curiosity and desire to plug a cognitive gap. Secondly to explain the greater success of phases 1, 2 and 5, we suggest that in phases 3 and 4 the learners in this study were ‘in character’, fully engaging with the competition within the scenario, whereas in the early and late phases they may have felt less compulsion to ‘get on with the job’ and more freedom to put linguistic queries to each other. Support for this idea comes from data extraneous to this study, i.e. one of the synchronous ‘chats’ organized in parallel to the main “*Simuligne*” activity, in which learners busy discussing menus for their fictitious university canteen ignored an NSh’s attempts to draw them back into a ‘real-world’ conversation.

“*Interculture*”

In “*Interculture*” the task consisted in talking about 40 stimuli (18 words or phrases, 12 sentences to complete and 10 hypothetical situations to respond to). The use of L1 was encouraged, but L2 could be used if participants preferred. Here is a breakdown of messages posted to “*Interculture*”.

	H	G	M	N
All messages	64	176	18	54
Form-focussed messages (L1 and L2)	17	33	3	13
Form-focussed messages in L2	3	12	3	3

Table 9: message distribution per learner in “*Interculture*”

Our participants chose to discuss 17 of the words, all 12 sentences and 7 of the situations, which represents a broad thematic coverage. So we were interested in seeing which of the stimuli triggered the highest number of form-focussed discussions. We found that some of those discussions were directly related to the stimulus, and others more tangentially. For example if the stimulus was “Community”, and the learner talked about connotations of L1 or L2 words linked to the word “community”, we counted this as direct elicitation. But if the discussion was about the words “parochial” and “curé” (priest), triggered by the contingent remark that some communities are narrow-minded, this was counted as an indirect elicitation. Table 10 shows direct and indirect elicitations.

INTERCULTURE	Number of form-focussed messages	
Stimuli	Direct elicitations	Indirect elicitations
Community/Communauté	5	
Elite/Élite	5	
Authority/Autorité	4	
Freedom/Liberté	4	

Suburbs/Banlieue	3	
Family/Famille	2	2
A fun party is a party where .../Une soirée sympa est une soirée où ...	2	
United Kingdom/Royaume-Uni	2	
France/France	1	
A good citizen is a citizen who .../Un bon citoyen est un citoyen qui ...	1	
A good parent is a parent who .../Un bon parent est un parent qui ...	1	
Individualism/Individualisme	1	
Neighbours/Voisins	1	1
Smoking in a non-smoking area .../Fumer dans une section non-fumeurs...	1	
Power/Pouvoir	1	
A rude person is a person who .../Une personne impolie est une personne qui ...	1	
School/École	1	9
A true friend is a friend who .../Un(e) véritable ami(e) est un(e) ami(e) qui ...	1	
Work/travail	1	

Table 10: stimuli eliciting form-focussed exchanges (for all 4 learners).

The table shows that free association based on lexical stimuli produced more form-focussed output than sentence completion, while ‘reacting to situations’ produced none. It also suggests that cognate lexemes (like Authority/Autorité) triggered more attention to form than non-cognates (like Work/Travail). Both findings relate to the design of the task, which explicitly asked speakers of French and English (two languages with a high level of cognate lexis) to discuss word connotations. But explicit instructions do not always result in interactive postings, as we saw in “*Lexica Online*”, so an additional explanation might be that the words at the top of the table were more interesting because less familiar (thus discussants needed to define the terms of the debate) and of great relevance to adults situated in society (thus they were prepared to invest time in this definition work).

In further support of this idea, we note that the three words referring to everyday realities (family, school, and neighbours) led only to indirect elicitations, i.e. there was apparently little desire to explore their connotations. But curiosity was aroused when the conversation ‘came round’ to unfamiliar issues contingently, to use Van Lier’s word. For example “Family” led to a conversation with an NSh “le PACS” (same-sex or intra-familial cohabitation contract), and “Neighbours” produced a discussion about the false friends “peasant” and “paysan” led by a participant whose neighbours happen to be farmers.

General discussion and interpretation

Influence of task design

Of our three projects, “*Lexica Online*”, which gave specific instructions to discuss form, generated the highest number form-focussed postings (see Table 11 below). However, these were mainly task-reports and comments that were not replied to. The

requirement to spend time working alone with the software was a task-design choice which may have inhibited participants from interacting more fully, in spite of explicit encouragement to do so. Of the two projects with an emphasis on culture, “*Simuligne*” triggered some form-focussed exchanges, mainly in its socialisation and reflection phases, when learners were free from the need to concentrate on achieving the outcomes of the activity, while “*Interculture*” was the most successful at drawing learners into form-focussed exchanges, mainly in the activities where instructions explicitly encouraged attention to lexis.

These results show that task design does influence the production of form-focussed output, particularly when the task instructions ask for this explicitly. But in the course of our study, several extrinsic factors were shown to have influenced learner take-up of reflective strategies. We now summarize them.

Socio-affective factors

Because this is a non-experimental longitudinal study, it is difficult to separate the effect of task design from that of increased bonding as time passes. For example, H’s remark in the final interview that “with *Lexica* I felt pretty much alone” may reflect the isolation resulting from the design or the lack of group bonding in those early days. By the time they started “*Simuligne*” and “*Interculture*”, our four subjects were much more experienced conference-users, and we know from forum logs and from their evaluations that though they had never met each other, they felt they ‘knew’ each other well enough to trust each other to bring light to cognitive issues, particularly comprehension gaps and production problems, arising from different proficiency. For example more messages involved learners helping each other than tapping into the tutor’s or the NSh’s knowledge. This echoes our assumptions about expertise-transfer and community-building in the previous paragraph. However, G observed: “We try to keep *Lexica* going in French. But we email each other privately in English! And we also did it with *Simuligne*!”, which suggests that for distance-learners bonding also creates a need to communicate in L1, and that for L2 communication to be sustained over time, further motivational factors must be present.

Factors relating to ICT skills

The need to manipulate the technological tools generated form-focussed L2 interactivity and production of delayed modified input. For example M declared that she did not know how to say ‘download’. The answer (*télécharger*) was supplied by G. Later M used the verb in different conjugated forms. In another example, M checked her understanding of the word ‘éditer’(edit), and later used it to teach another learner how to retrieve the electronic questionnaire, accidentally corrupted in transfer). For learners there may be a multiple pay-off in these exchanges. They need to overcome the ICT obstacle in order to address the linguistic task at all. But there may also be influences such as the recognition that ICT skills are transferable so it is worthwhile investing time in acquiring them. There may also be a social motivation: ICT knowledge is unevenly-distributed among project-members, allowing different individuals in turn to become expert helpers for others, which helps with community-building.

Language proficiency factors

We rated proficiency based on the quality of the learner's French, from a subjective reading of their messages, and on their answer to a question about the time it took them to complete the activities. G (whose productions have a near-native speaker 'feel' about them) said she completed the work 'in the exact amount of time allotted'. M, whose French was more uneven and who frequently asked for help with it, said she often took longer than planned. H took 'at least twice as long as planned', particularly in understanding task instructions and N often took 'half the time allotted', though he adds: "Les consignes j'ai trouvé instructives et précises, mais pour moi, à mon niveau de français, elles ont demandé beaucoup plus de temps que j'avait prévu, pour les comprendre" (I found the instructions informative and precise yet for my level of French I spent much longer than I'd thought trying to understand them). This may indicate a learner who likes to move on fast once the purpose of the task has been understood. For him, comprehension is more time-consuming than production, showing perhaps that when producing he relies on language that he knows already, and though keen to use new forms, is not prepared to invest time in discussing them.

There appears to be an optimum proficiency level for orientation to form. For example, as we see from her scores in Table 11, M was the best sustainer of form-focussed discussion throughout the study.

In %	H	G	M	N
Lexica Online	42	48	55	50
Simuligne	19	14	24	11
Interculture L1	21	12	17	18
Interculture L2	5	7	0	6

Table 11: form-focussed messages expressed as a percentage of total messages, per project per learner

Her self-assessment included the comment "Il me fallait travailler un peu pour achever les resultants et donc c'était un bon niveau" (I'll had to work a bit to achieve the results, so therefore it was the right level). She used the array of strategies that "Lexica Online" was designed to encourage: asking for clarification on forms, then applying them to a variety of sociolinguistic contexts. In her evaluation she shows that she is an active and reflective learner: "I learn a lot from it [interacting online]: somebody puts up a word and you think oh I wonder what that means and you go and look it up". M uses these strategies to support her conscious effort towards greater proficiency.

This insight converges with Williams (*op.cit.*) in suggesting that "the connection between attention to form and subsequent use of those forms" is affected by proficiency level.

Ethnographic data and learner beliefs

In her forum messages and in open-ended interviews, H attributes learning value to her domestic arrangements. In the following quote, collected at the end of the third project, she links this to habits learnt when participating in "Lexica Online", 15

months earlier. “I am still learning every day from *Lexica*. Today I learnt a new phrase! Because my computer is in our ‘office’ (a little way away from the main body of my house) I don’t keep a dictionary there. So I compose without the dictionary, which is very good for me. And when someone write something that I don’t understand, I note the words down, then when I’m in the house, I look it up in the dictionary. So I’m always writing words, learning new words.”

The “social [...] features of language valuation” (Belz, *op. cit.*) also come into play, as shown by N’s comments about M (a resident of Jersey) and H (who lives in Brittany): “I keep asking myself what I’m learning. Actually I’ve learned quite a lot. I’ve learned from the way M writes. Also from H, because she lives in France day to day, so she puts things a certain way”. N thus ‘notices’ structures produced by those whom he knows live in or close to the target country. He makes no mention of G, a near-native speaker with whom he frequently interacted, and whose prolific contributions could have provided ample opportunities for linguistic imitation. Possibly, G’s often-mentioned Polish origins may have deterred N from valuing her as a linguistic model for French.

Factors linked to learning style

Because we have limited biographical data on our learners we would want to approach claims about learning style with caution. However, based on converging insights from the evidence above, we can offer some generalisations related to H and to N. We note for example that H, alone of all “*Lexica Online*” feedback respondents, mentioned the self-testing tool, claiming that “with *Lexica* I did learn and retained words. I don’t think that *Simuligne* increased my vocabulary in the same way. The testing tool on *Lexica* was very good”. Also, H is the only respondent to display awareness that though “*Simuligne*” was culturally-focussed, there were nevertheless linguistic gains to be had: “what I learnt with *Simuligne* was varied types of French for different situations (for example having to write in advertising language)”. Of “*Lexica Online*” H said: “Je trouve que j’ai fixé dans ma tete (si on peut dire ça!) plusieurs mots qu’avant me donnaient des problèmes, comme évanouir, épanouir, éblouir, piquer, et beaucoup d’autres simplement parce que j’en parlé et ça, ça est plus facile de rappeler”. (I find that I fixed in my mind – so to speak – several words that used to cause me difficulties, like évanouir, épanouir, éblouir, piquer and many others, simply because I talked about them and this make it easier to remember them.)

Our assumption is that H’s study arrangements, her valuing of the testing tool, her interest in language registers and repeated evidence of her interest in discussing these as learning strategies show her to be a deep-learner with a liking for self-testing and monitoring, i.e. for White’s “self-management” strategies (*op. cit.*).

In contrast N offers least evidence of participation in or enjoyment of form-focussed dialogue with his peers (though we saw earlier that he ‘notices’ and values his peers’ French), often preferring to asks teachers for clarification and error-correction, and showing a systematic approach to output production: “we have recently learned subjunctives. So I try to put in subjunctives deliberately”. This is reflected in his less than enthusiastic evaluation of “*Lexica Online*”: “I am not sure of the value as a learning tool.” This in turn tallies with our earlier remarks about his proficiency level and our interpretation of his use of time to prioritize production over reflection.

Conclusion and further research

We have presented a longitudinal study of distance-learners engaged in reflective interaction in three different types of tasks online. We have shown that task design determines to an extent the adoption of form-focussed and metacognitive strategies, but that other determinants are ICT proficiency, language proficiency, socio-affective and ethnographic factors, and learning style. Our study also shows that holistic research influenced by socio-cultural theories produces a very complex picture, even when the population is as small as four subjects. Within the limitations of a non-empirical study such as this, it is not possible to isolate the respective effects of these convergent factors. Controlled research on a larger body of subjects is necessary in order to achieve this, though methodological challenges abound in how to design appropriate tests.

Meanwhile extensions of our work on the discrete linguistic features of the current corpus are planned and will include investigating the value of L1 interaction in triggering L2 form-focussed work, the value of contingent peer conversations in triggering syntactic as opposed to lexical pushed output, and a study of delayed production and recast of linguistic structures brought to salience in peer interactions in early stages of the conferencing.

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