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# The Use of Video-conferencing as a Communication Tool for Language Learning: Issues and Considerations

Tricia Coverdale-Jones  
University of Lincolnshire and Humberside

## Introduction

Videoconferencing is a relatively new medium within British higher education and even more so in the secondary and primary sector. This is due mainly to financial and technical constraints. Within my own institution I had been using computer-mediated communication with students for about three years, and had noted the effects of the text-based medium on communication, notably the potential for cross-cultural effects (Coverdale-Jones, 1998). Within this context, and having seen one or two demonstrations of videoconferencing at conferences, I was interested in seeing how this medium also could affect communicative language learning activities. Thus the aim of the two pilot studies which I shall describe here was to note the effects on communication and to consider how these could be overcome or, alternatively, utilised to good effect.

## 1. Video-conferencing within the context of CMC

In the last four years, Computer-Mediated Conferencing (CMC) as a text-based medium has seen a dramatic increase in its use in European institutions of higher education. Distinctions between email and conferencing systems have become blurred as each takes on the features of the other. Journals such as ReCALL publish articles on the use of these, and textbooks on collaboration in education have been published in the last decade (Berge & Collins, 1998; Somekh & Davis, 1997; Mason & Kaye, 1989). Students have enthusiastically taken up email and related online activities. It may take some time, however, to persuade them that email is not just a leisure pursuit, as instanced by one survey I undertook (Coverdale-Jones 1998).

Videoconferencing, on the other hand, has come into the picture of higher education more recently. The technology is still a little shaky, and its availability is not the norm in British Higher Education institutions, although many are experimenting with its potential uses. Conferences are being

held to spread the word<sup>1</sup>, and conferences on language learning often include papers on videoconferencing, such as this one. A shift away from technical considerations towards consideration of the scope and use of this technology can be perceived. The need for change is not technology-driven but arises from pressure in all educational sectors to integrate videoconferencing as a learning tool. This, combined with the trend for lifelong and distance learning which has been the driving force behind so many uses of CMC, leads to a deeper consideration of videoconferencing as something more than a presentation tool. Just as the Internet has developed from being perceived initially as a means of presenting information rather than as a means of human interaction, IT has become ICT, with the emphasis not only on information but also on communication. CMC is often proposed as a means for enhancing collaborative learning within a constructivist framework<sup>2</sup>.

The use of ICT is also very much in vogue at present. In Britain, Government support is forthcoming for ICT use in schools, with the setting up of the National Grid for Learning and related projects. It was in this context that I decided to trial videoconferencing technology with language learners at my own university.

## **2. The context of the videoconferencing pilot**

In the summer semesters of 1998 and 1999, a link-up was trialled from the University of Lincolnshire and Humberside, Hull Campus, with a partner institution with which we exchange ERASMUS students. The partners are at the Hochschule Anhalt, Bernburg, which is in the former East German state of Sachsen-Anhalt. The contact was between language teaching staff and with the department of Informatics at the Hochschule, as well as the Learning Support department at ULH.

There was a discrepancy between the facilities available at the two sites. ULH was using Intel ProShare software and camera, temporarily set up in a meeting room with no special lighting or soundproofing but with an ISDN line. The Hochschule had a Sony suite of two studios, located in the department of informatics, with proper lighting, soundproofing, and multiple cameras that could be pre-set. The most important factor, however, was a willingness on both sides to co-operate on the trial. The language learning context was also crucial here.

In 1998, the students were first year Hochschule students who were learning English within the context of an International Business Studies degree; they met with similar students from the final year at ULH. In 1999, a similar group from the Hochschule met with final year students who were native speakers of English (with one very fluent exception) learning German or French.

Within this context, a pilot study was set up to explore the use of videoconferencing for language learning.

### 3. Asynchronous versus synchronous CMC - effects on communication

Much has been written about the advantages and disadvantages of asynchronicity, tele-presence, text-based or spoken communication. In the trials, students were very impressed by the medium, despite the erratic nature of movement or lack of movement visible on the screen. If we as language teachers are concerned with communication, the personal factors cannot be disregarded. The immediacy of contact with speakers of the same generation was noted by participants with enthusiasm as one can see in their responses to the following extracts from Trial feedback forms:

What are the main advantages of using videoconferencing for an activity of this kind?

B: Can communicate to anywhere in the world. No need for excessive travel expense/costs

L: Low cost than flying abroad, practice of languages brings students closer together (sic).

P: Very interactive in comparison to email/chat. More personal.

A: You can see who you are talking to. Easy to build a relationship.

T: Can see the other party @ more personal than fax--telephone, email (Extracts from Trial # feedback forms -- Hull)

This enthusiasm, as often referred to with reference to motivation in the use of CALL, is one factor we can use to advantage in teaching communication in a foreign language.

### 4. Language Learning Activities

With the aims of communicative language learning and collaborative learning, the first trial involved using a role-play situation such as could be used in class.<sup>3</sup> The students had designated roles representing either a supermarket company or local residents who objected to the building of a new supermarket in a historic town centre. There were problems with this choice of activity which could have been dealt with easily in a classroom situation but which loomed much larger in the videoconferencing context, as will be seen. The trials took place on two days with a two-day interval between them; on the first day students spoke in their roles one-to-one with a partner at the other centre, on the second day an attempt was made at a group discussion. Students in Hull were responsible for their own preparation after an initial discussion and following a rubric; students in Bernburg prepared and took part in class.

In the second trial a presentation and discussion on the theme of nuclear power took place, with learners representing designated positions "pro" and "contra" the setting up of a local nuclear power station. In the second trial, the aim of collaborative learning was emphasised, and care was taken to introduce the students individually before they took up their roles. This was because the confrontational nature of the first role-play situation had possibly led to the aggressive tone which arose and which left the learners and tutors at the receiving end (the Hochschule) rather shocked. This will be discussed further in section 5. The two parts of the activity took place on the same day with a short interval between. Students were again given a rubric and prepared their own presentations, although the time available to the Hull students was limited.

## 5. Observed effects - feedback

### 5.1 Interrupting and turn-taking

The issue of turn-taking in a videoconference is very dependent on the technology used, i.e. the system used. In our case, delays were noticeable, and students had to be prepared to give the floor to the other speaker or to complete their own utterances. Transmission delays affected this to some extent, limiting the number of backchannel support signals such as "uhuh" which could be given in the videoconference as opposed to face-to-face interaction. However, in both trials, students did not find it difficult to adapt themselves to this even though they had anticipated that turn-taking would be a problem. This was also a matter of discipline on the part of the students.<sup>4</sup> On the other hand, for one female participant in the first trial, who is perhaps used to being frequently interrupted, this represented in fact an advantage:

H - When the others can't interrupt you by this method, you can finish argument .... They can't cut your part. So you really can say and explain it in detail what you want to say, without having to fear that they interrupt you and cut everything that you want to say. (Trial 1)

However, the question arises, even after a short experience, whether this is as "real" a form of communication as face-to-face, or whether the effectiveness of communication is reduced by the technology's restrictions:

T - Do you think that you can really communicate with people through videoconferencing?

Ti - Today it was very close but then again you couldn't actually comment straight away when someone said something - but probably like, later on. (Trial 2)

H: you really don't know how your partner feels & what she thinks - [you] don't see expression of partner's face in the same moment we speak to them. (Trial 1)

## 5.2 Impersonality/ Discipline

*“Linked to this turn-taking effect is an apparent distancing from the “other” side, i.e. the remote participants in the videoconference.”*

Linked to this turn-taking effect is an apparent distancing from the “other” side, i.e. the remote participants in the videoconference. I have noted elsewhere (Coverdale-Jones 1999) the lack of empathy on the part of the students on the Hull side in Trial 1. Student participants did not notice or acknowledge this, even when prompted by leading questions. Thus the question arose as to whether this was due to the personalities involved, or indeed the nationalities<sup>5</sup>, or whether the lack of signals able to be transmitted by the medium itself made the exchange more impersonal. However, in Trial 2 this effect did not seem to play such a part, maybe due to the more careful planning of the activity on the part of the tutor.

Comments from the British students in Hull referred to “building a relationship” even though only two thirty-minute sessions had taken place.

Liz: Because it’s good, all well and truly (sic), like doing French in class speaking to each other, but speaking to a native speaker of your own ages, it’s amazing, it’ll help to prepare for the year out. (Trial 2)

Angela: It’s good how you build a relationship with people. (Trial 2)

The effect of turn-taking, as discussed above, was also noted as creating a less personal exchange:

R: I think the response is much faster, face-to-face—I think ...it’s not very personal is it? ... But this way it takes time, so first it’s my time to talk, and then so I have to wait, she talks and then it’s my time again, and stuff like this. So it isn’t very personal. (Trial 1)

The self-discipline which this student is describing also provided opportunities for game-playing (and winning). Such an effect might be enhanced in this medium, where the normal signals are reduced in number and effectiveness by the technical limitations. The participant may have more control over what is displayed on screen<sup>6</sup>. The on-screen video picture of one’s own image makes the participant more conscious of the visual effect s/he is creating.

Mi: You can hide your personality in a videoconference. You have the time to think about. You decide what you show about you. You decide your picture that the others can see. You can just show your face or show your whole body when you want to show some body language ... but it’s your decision what you show. (Trial 1)

In Trial 1, the students also noted that this discipline gave them more control over what they were doing. One student also planned to “try to control my body language, look more at myself to study my body-language” in response to the questions

about what he would do differently next time. He also saw the advantages of control:

Mi - Because then I think I could control myself better during the videoconference than I could control myself face-to-face (knocks on table) because then you would spontaneously say something, act and show more body language and to see also the reactions of people and their face how they look how they ... (Trial 1)

Difficulties in interpreting body language, in dealing with the signals from the other side, have been noted in other studies (Skowronek & Kind, 1997; Goodfellow et al, 1996). The participants explained this in terms of the technical features, observing that the distortion of audio and video signals prevented them from reading their partner's lips & his/her facial expressions. However the participants in Trial 2, who, contrary to those in the first trial, did not see their own image on screen, found the view of the other group to be a bonus:

T: Which do you think was more important, the sound or the visuals?

Paul: (General agreement). I suppose the sound was. You need to be able to hear what...As we said the vision is quite important...know who you're speaking to even just through vision you can sort of give, like I'm doing with my hands, signs, can't you. It helps communicate.

Liz: It's like when they didn't understand something you could see them look at each other like and say what?

Paul: Yeeh, exactly (general agreement).

Angela: It relaxes the atmosphere as well. They were sort of laughing. (Trial 2)

#### 5.4 Liveliness / competition versus aggression

Liveliness and competition were certainly issues in Trial 1, but not in Trial 2. In section 5.2 I have already referred to the question of whether personality, nationality or the nature of the activity influenced this. Differences in level and preparation by the two groups of students led to problems in achieving the goal of collaborative learning which the tutors had rather taken for granted. This should perhaps have been made clearer in the rubric or verbal instructions. However, in finding partners for penpal exchanges, email or videoconferencing, there is frequently a problem in matching groups.

One example of this is the way the Hull group (representing residents of the town where a German company wanted to build a new supermarket) suddenly made up details of the townscape in order to win the argument. They announced that the historic town centre was composed of one-storey buildings, in reaction to the "other side's" architect's plan for sympathetic two-storey

development in the style of local buildings. (The tutor for the group on the receiving end of this ploy commented that he tried to imagine a street full of sixteenth century bungalows!) In Trial 1 a real confrontation took place with the Hochschule students appearing rather shocked at the end of the session. The planning for Trial 2 was aimed at reducing the scope for aggressive or ruthless game-playing. When asked, the Hull-based students in Trial 1 described the activity as a game which they had to win, indeed they had won it and found this amusing. More probing questions in the group discussion did not elicit any feelings of sympathy, when they were asked how they felt the remote students felt:

Ma: They didn't take it into account that it was a game/play. When we thought about...Play like you're really upset. We tried before one time (practised). They didn't do that--disadvantage for them, nothing to do with level.

Ma: in first conf (sic), a bit surprised, not expected that we play this way (all laughing at this).

H: At end of second meeting, (I) could see they were so disappointed, so sad--funny.... We felt like being the winner--when we suggested that they build in the suburbs, in 5 minutes they agreed.

In Trial 1, the Hull students had invested quite a lot of time in planning their language and strategy for the meeting, thus they felt aggrieved that this hard work had been wasted because the remote students, the "other side" had not prepared their own tactics better, and also that the students in Germany could have played with more enthusiasm. As one student said: "all our preparations went away."

This appeared to the tutors (who observed the trial live and watched the video afterwards with the students) as a lack of empathy, which may have been reinforced by the reduced clues to personal interaction in this medium. This distinction between "them" and "us", which might have been reinforced by the medium of videoconferencing itself, did not, however, appear to any great extent in the second videoconference. Many different variables may be at work here. Not only was the activity planned with the aim of consensus made clear in the rubric, but the view which the Hull students saw was a full screen of the other group, as opposed to a small section of the screen with other buttons and one's own image. The lack of empathy perceived by the tutors was not evident in Trial 2 (feedback from the Hochschule students is still to come).

I have already referred to the way in which the rubric for Trial 2 was aimed at consensus. Students had to decide whether they would accept the building of a nuclear power plant within a

*"Differences in level and preparation by the two groups of students led to problems in achieving the goal of collaborative learning which the tutors had rather taken for granted."*

thirty-mile radius of the university. This rather more abstract situation is far less personal and confrontational than the roles of supermarket builders and local residents opposed to them. Authenticity of communication may also have been a factor here. The communication itself can be real at times, as can be seen in the video, despite the effect of reduced signals in this medium.

### 5.5 Preparation: Role-play and authenticity of communication

In Trial 2 the British students (plus one Finn) felt embarrassed at their lack of time to prepare more, especially in comparison with the presentations from the Hochschule. This was countered by their native speaker ability, however, and as they became more familiar with the topic in the course of the discussion they increased in confidence.

It is not possible to say exactly how far personality influenced the outcomes of the two trials. In my view, the careful planning which went into Trial 2 (in the light of experience gained from the first trial) had a significant effect on the outcome, making the exchange a much more positive experience for student and tutor participants. This view was also strongly supported by the tutors from the Hochschule.

### 5.6 Advantages of videoconferencing

*Advantages:* The advantages cited by the students have already been referred to in section 3; they saw the immediacy of communication with a real person from their own age group as a definite benefit. The number of disadvantages in the feedback was smaller than the advantages cited (See Section 3), and included mostly references to technical drawbacks, which negatively affected the communication.

*Disadvantages:*

B: Personal feel is lost.

L: Hard on a group basis due to one-way audio system.

P: Not always clear to understand.

A: Picture soften unclear (fuzzy). Communication sometimes failed.

T: Timelag--connection/link problems--sound--volume and cut-off. (Extracts from Trial 2 feedback forms; Hull)

We are all used to the mantra, so often repeated by students, of the advantages of technology and the Internet, but these students also saw real communication or interactivity as one of the virtues of videoconferencing.

Two students in Trial 1 felt that there were both advantages and disadvantages to the use of videoconferencing, depending on whether the role-play was being compared to telephone communication or face-to-face interaction.

R: I think the thing is, if you have a normal telephone call



and you have this, it's a huge advantage to have a picture of the other person, so in one way it is personal. So if you have to talk to someone, talk to about business things, even if you could see the other person not very clear on the screen.

H: Much more personal than calling or e-mailing people. (Trial 1)

Ben: I prefer personally to do that than to do it with a phone. It is more personal. If the technology is there to do it. (Trial 2)

As observed by the tutors in Trials 1 & 2, real communication was possible, regardless of whether this was confrontational or supportive. The perceived drawbacks or advantages depend largely on what the medium is being compared with. All participants in both trials emphasised the positive experience they had gained from the videoconference. This is similar to the response of the secondary school pupils in the Monkseaton trial (Students across Europe Project, 1998), where the effect of speaking to partners of one's own age live in the videoconference was motivating in a way that a telephone link was not.

Liz: I think as well with language students, developing this kind of link at the university would be brilliant because it's good, all well and truly (sic), like ddoing French in class speaking to each other, but speaking to a native speaker of your own ages, it's amazing, it'll help to prepare for the year out. (Trial 2)

In Trial 1, despite calling the Humberside students "aggressive", the students in Germany still thought that it had been a good experience:

Mic: A little bit shocked because the other side was very aggressive.

F: It was the first time ever that I took part in a business talk and our partners on the other side were rather tough, so it was a good experience. (Trial 1)

## 6. Discussion

### 6.1 Comparison between the two trials: Our learning curve

Between the first and the second trial, the lessons learnt could be applied in practice. To some extent, the aggression observed in the first trial may have been dealt with by the careful wording of the rubric and the choice of activity. However, in dealing with individual participants in this medium as in the classroom, there are too many variables for us to state with certainty that the rubric was the deciding factor. In considering the lessons learnt from the first activity, we must ask whether they apply generally, or whether it was just a case of the personalities involved. Nonetheless, we can conclude that the planning, based on the first experience, was an important factor.

## **6.2 Preparation**

Karl Donert (1999) says that the more interactivity an activity requires the greater the planning needed. A lot of language learning activity is scripted, especially in role-plays at beginner or intermediate level of language competence. The preparation of the rubric for Trial 2, as already referred to above, was intended to emphasise the aims of the activity as a collaborative exercise. The goal of collaborative learning is somewhat taken for granted by tutors in the British educational system; perhaps the influence of culture can be discerned here.

The importance of preparation and integration into a course context which has been pedagogically designed has been noted in other studies of videoconferencing (Goodfellow et al, 1996; Skowronek & Kind 1997). They also noted the considerable investment in time for these "pedagogical overheads". Our own learning curve in dealing with this medium is reflected in the success of the second trial from a language learning point of view, as related by the tutors at the Hochschule.

## **6.3 Communicative Effects**

On the other hand, the communicative effects of the medium itself and the need for more deliberate turn-taking can be perceived by learners as having both a positive and a negative effect. In the first trial, they were found to mitigate against both conventional language-class-teaching approaches and natural group discussion. In the second trial, these effects were not so clear. Goodfellow, et al. concluded that the normal use of body language to gauge the reactions of the hearers is lacking and inhibiting (1996:14). The Hull students in Trial 1 resolved to modify their reactions and body language in response to the question "What will you do differently next time?". In the second trial where the Hull students could not see themselves, they focused more on the language and content of messages. It can be considered that the medium itself may require new approaches to learning, on the other hand it could be said that this careful approach is how language teachers plan their lessons in any case. In my view, it is clear that we cannot simply transfer typical classroom activities, where it is easier for the tutor to intervene and to direct the flow of the interaction, to the videoconference where communication factors are subject to external influences of technology/medium. The view that videoconferencing is a reduced form of communication in comparison with face-to-face interaction is supported by many of the students' evaluation responses. It is the nature of this reduced medium which makes it all the more important to introduce oneself to the other participants, as was in fact done in the second conference.

### 6.4 Novelty

The influence of the novelty of the medium on participants (as in other uses of technology) has been noted elsewhere. Skowronek & Kind (1997) administered attitude surveys to their users after each of four transatlantic videoconferences. They noted a slightly less positive response after the fourth videoconference than after the first and attributed this difference to initial pleasure at finally getting the technology to work. The later trials were seen in a less euphoric light, although still overwhelmingly positive. This may be due to the fact that the students had had more time for reflection and had an increased awareness of the communication weaknesses of the medium.

### 6.5 Reflection

The importance of reflective learning is nowadays a byword in consideration of enhancing the learning process. The possibility of reflective learning in these trials was enabled by the video recording of our side of the exchange. This is not a direct use of the videoconferencing technology, rather a by-product. The focus of so much tutor attention on the process is another factor which cannot be ignored, as in many other trials. Students watching the video of their recent interaction may become aware of elements of personal behaviour which they do not perceive in the heat of the moment, as the following informal comment exemplifies: "It made me recognise just how arrogant and rude I can be...felt really ashamed when watching the video. I'll watch it again and learn from it." (Trial 1)

### Conclusion

Communicative language learning relies on the authenticity enabled by a real communication situation. However, in using the videoconference, as with other computer-mediated communications, there may be a need for greater authenticity than in the standard classroom role-play situations with potential tutor intervention. After the first trial I would have concluded that there were problems of alienation inherent in the medium. However, in the second trial this was overcome by a combination of factors, only some of which were within my control as tutor.

Certainly the interpersonal communication would have been easier in face-to-face interaction where all the metalinguistic signals could have been perceived. However, the participants in Trial 1 were not aware of a lack of empathy on their part and those in Trial 2 did not show similar behaviour. The visual effect of a full-screen view of the "other side" certainly seemed to contribute to a more sympathetic style of communication. To some extent the tutor can plan so as to mitigate the effects of individual personality and cultural factors; this is counterbalanced, however, by the reduced scope in the live

situation for intervention by the tutor. The medium itself may lead learners to be less inhibited.<sup>7</sup> The effect of decontextualisation may be a cause here. Feenberg (1989) recommends face-to-face meeting first before the use of text-based CMC. Some studies of online communication suggest that there is a limit to trust between correspondents (Simon, 1998) in computer-mediated communication. Even though the visual element makes so powerful a contribution to the authenticity of communication in videoconferencing, tutors need to allow for the reduced nature of the medium by planning for collaboration for a common goal and for optimal communication. ♦

## Notes

<sup>1</sup>E.g. the UKERNA / JTAP conference "Using Videoconferencing: Gateway for Distance Teaching and Learning " 24<sup>th</sup> February 1999, Royal Geographical Society, London.

<sup>2</sup>The latter is, however, a cultural concept which has not yet been proved to work in cross-cultural situations. We still have the situation where the user adapts to the machine or the learner adapts to the learning style

<sup>3</sup>Cotton, D., (1988) "Keys to Management". Nelson The role-play was taken from a standard text for teaching Business English, and was of the type used for classroom interactions. The aim was to see whether the same type of role-play could be used in the videoconference as in the classroom.

<sup>4</sup>This can be compared with the experience of another trial, with adult learners using a push-to-speak system who were able to adapt well to the "outback radio" effect of speaking in turn, without minimal responses and one at a time, and while holding down the left mouse button.

<sup>5</sup>One (Austrian) member of the audience at the BALEAP '99 conference observed that this game-playing attitude was part of the normal learning culture in Germany. Other observers of Trial 1 also agreed with this view when it was put to them.

<sup>6</sup>In the second trial the students only saw a large screen with the view of the other side, thus they did not see their own image, however small, and were concentrating on how their remote partners looked.

<sup>7</sup>This was noticeable in one videoconferencing trial with our other campus in Lincoln, where female students addressed a male lecturer in a familiar way. Later they were horrified to realise that they could be taught by this lecturer in person, saying that they would be embarrassed at the memory of the type of comments they had made to him!

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*Tricia Coverdale-Jones is Senior Lecturer in EFL and German at the University of Lincolnshire and Humberside. She is CALL Coordinator in the department of Modern Languages. She has a long-standing interest in CALL and its application in the classroom, also in intonation and in cross-cultural communication. Email: tcjones@humber.ac.uk*