



Nottingham 2011



The Call Triangle: student, teacher and institution

What is the impact of video conferencing on the teaching and learning of a foreign language in primary education?

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Abstract

Under the French national project “1000 video conferencing systems for primary schools”, a growing number of schools are being equipped of video conferencing systems. The assumption underlying this project is that, by putting students in a position to communicate with distant native speakers, it will enable them to improve their oral and socio-cultural skills. Indeed, by giving young learners the possibility to be in direct visual interaction with native speakers, it seems that video conferencing enhances mutual understanding and develops specific skills both on the students' and the teachers' sides. Yet trying to understand to what extent video conferencing affects teaching and learning strategies is not an easy task. This text focuses on video conferencing sessions taking place between young French and English learners as they play a well-known game “Cluedo”. It presents the first results of a study that relies on a collaborative project in which researchers, teacher-trainers and French and English teachers are involved.

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Keywords: video conferencing; primary; joint action; collaborative research.

1. Introduction

Under the national project "1000 video conferencing systems for primary schools", a growing number of French schools are being equipped of video conferencing systems. The assumption underlying this project is that, by putting students in a position to communicate with distant native speakers, it will allow them to improve their oral and intercultural skills. The objective of this text is to give an account of an on-going research that seeks to put to light the effects of video conferencing on teachers and students' joint action.

This research, launched in September 2008, is conducted by a group composed of researchers, teacher trainers, primary teachers and PhD students located in Brittany. It has been organized in two different periods. First the group conducted an exploratory research during which we analyzed data collected in four classes where video conferencing was used on a more or less regular basis. The second period started in September 2010. For a year, the group worked on the designing of a teaching unit based on the use of a popular mystery-themed deduction board game called Cluedo; this unit was implemented in a Breton school and a school situated in Devon in February 2011.

2. Theoretical framework

The theoretical tools we use to conduct our analyses are borrowed from three main fields. The main notions come from the joint action theory in didactics (Sensevy & Mercier, 2007), from foreign language

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didactics (in particular, Bange, 2005; Coste, 2002; De Pietro, Matthey & Py, 1989; Gaonac'h, 2006; Gruson, 2006 and 2009), and from the use of ICT for foreign language teaching & learning (in particular, Develotte, Guichon & Kern, 2008; Gruson, 2010; Guichon & Nicolaev, 2011; Macedo-Rouet, 2009; Moore, 1993; Tudini, 2003). In this text, we will limit the presentation of our theoretical frame to a few essential concepts.

2.1. The notion of transactional distance

The first notion we want to focus on is the notion of transactional distance (Moore, 1993). It refers to the psychological and communication space existing when the teacher is at a distance from the learners. It is described according to two sets of variables, dialogue and structure, and the level of autonomy required from the learners. In our research, we use that notion in a different context as, during the lessons we observed, the teachers of both classes were with their students. Nevertheless, we consider that this notion can be very fruitful as it includes contextual factors such as the number of students, frequency, students' level and content knowledge (*Ibid.*) and technical problems (Macedo-Rouet, 2009) which have a strong impact on the transactional distance and then on the students' and teachers' action during video conferencing sessions.

2.2. The notions of didactic contract and milieu

The two other notions we want to describe briefly are those of didactic contract and milieu. These notions were initially elaborated by Brousseau (1998) and Chevillard (1992) and further developed by Sensevy (2007).

The didactic contract is used to describe the system of habits, which is largely implicit, between the teacher and the students in relation to the knowledge at stake. On the basis of those habits established in the didactic institution, each participant (the teacher or the students) attributes some expectations to the other(s). The didactic milieu describes the system of material and symbolic objects: some correspond to previously acquired knowledge and others to the new knowledge to be acquired by the students. Under this description, the older pieces of knowledge represent the elements that enable the teacher and the students to act jointly.

Using these notions in our research has led us to specify them to the field of foreign language didactics. In the teaching and learning of English, Gruson (2009) showed that the milieu is very complex since, in an ESL (English as a Second Language) class, students have to cope with a great variety of media and semiotic systems, among which the foreign language in all its aspects represents a reality quite difficult to grasp. As for the notion of didactic contract, we put to light three specific forms of contracts that seem to characterize the ordinary ESL class. The first one refers to the way the foreign language is used in the class. The second one represents the time devoted to repetition and the last one corresponds to what we call the complete and correct phrase contract. One of the objectives of the research is to examine if virtual communication with native speakers has an impact on these didactic contracts.

3. Methodology and corpus

The data composing the corpus of this research can be classified into the two following categories: the video recordings of four lessons and the audio recordings of interviews with the teachers. The four lessons consist of two mono-national lessons filmed on each side of the Channel and the other two are the bi-national lessons involving video conferencing. To make the study possible, the lessons have been completely transcribed and these transcriptions used to elaborate synopses and select significant episodes. The two classes we observed are respectively a class of year five in Brittany and a class of year four in Devon.

Before presenting some of our results, we have to briefly describe how the original Cluedo game was modified so that it could be played during a video conferencing session. The original game consists in solving the mystery of a murder. The aim of the game is to discover the murderer, the room in which the murder took place and the weapon used to kill the victim. Two kinds of changes were introduced. First, for didactic reasons, we decided to adapt the vocabulary using fewer rooms and simplifying the names of some of the characters and weapons. Secondly, the use of the video conferencing required some modifications in the organization of the game as well. For example, the students being in two different countries, the dealing of the cards was just impossible. Choosing the mystery cards could not be done either. So we decided to share the cards between the two classes beforehand and also chose what the mystery cards would be so as to keep the secret. In the original game, the player making the accusation is

the only person who can see one of the cards he has called. That was also impossible. So in order to make the students practice their listening and speaking skills instead of just showing and watching cards, we decided that the answers to the accusations would be given orally.

4. Some results

4.1. A varying transactional distance

As mentioned before, the transactional distance is a varying distance that can increase or decrease according to specific factors.

During the video conferencing sessions, this distance often increases because of technical problems. During the lessons we filmed, the images and the sound were of poor quality at times and the English teacher was not very familiar with the use of the remote control, all of which tended to slow down the exchanges between the students. Nevertheless, thanks to the students' skills, the transactional distance was reduced. For example, we noticed that the French students, more used to video conferencing, made efforts to keep eye contact with the English students when addressing them and, thus, showed that they had "the sense of audience".

4.2. The impact of the reciprocity contract

During the exploratory period, we had noticed that during video conferencing sessions teachers and students of either country would regularly switch from English to French or vice versa. This can be explained by the fact that video conferencing sessions, just as e-tandem sessions, are characterized by what we call the *reciprocity contract* meaning that both French and English students have to learn the target language. This specific contract has a strong impact on the teachers' and the students' actions: it not only modifies the didactic milieu but also the type of didactic contracts that occur in the ESL class.

So, when we examined the sentences produced by the students, we observed that they always produced long sentences. In a very different way from what happens in ordinary classes, the production of long and correct sentences is not enforced by the teachers' expectations but by the English student's desire to provide the French students with a model on which they will be able to rely when they have to produce their sentences in English. As for the repetition contract, we observed that it is totally absent. In fact, in video conferencing sessions, repetitions are most of the time the result of technical problems that often disrupt virtual communication.

5. Elements of discussion and perspectives

We are convinced that video conferencing can be a very powerful tool but to be so we consider that teacher training has to be developed and that teachers need to have time to work together, in particular before the sessions. This means that for video conferencing projects to be successful, support from local authorities is really essential.

What about the future now? First, we have to go on working on the data so as to produce deeper analyses in particular on the impact of non-verbal behaviours on the development of students' skills when involved in video conferencing. Secondly, we have planned to work on a larger corpus as about 20 new schools will soon be equipped with desktop video conferencing systems in our area. Indeed we think more data is needed to try and evaluate the impact of video conferencing sessions on the way students develop their communicative skills and on the theoretical tools we use.

6. Acknowledgements

We would like to thank the members of the research group for their contributions and support.

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